TRANSIT: ILLINOIS WANTS TO HELP—BUT HOW?

March 8, 1971

RAILWAY AGE

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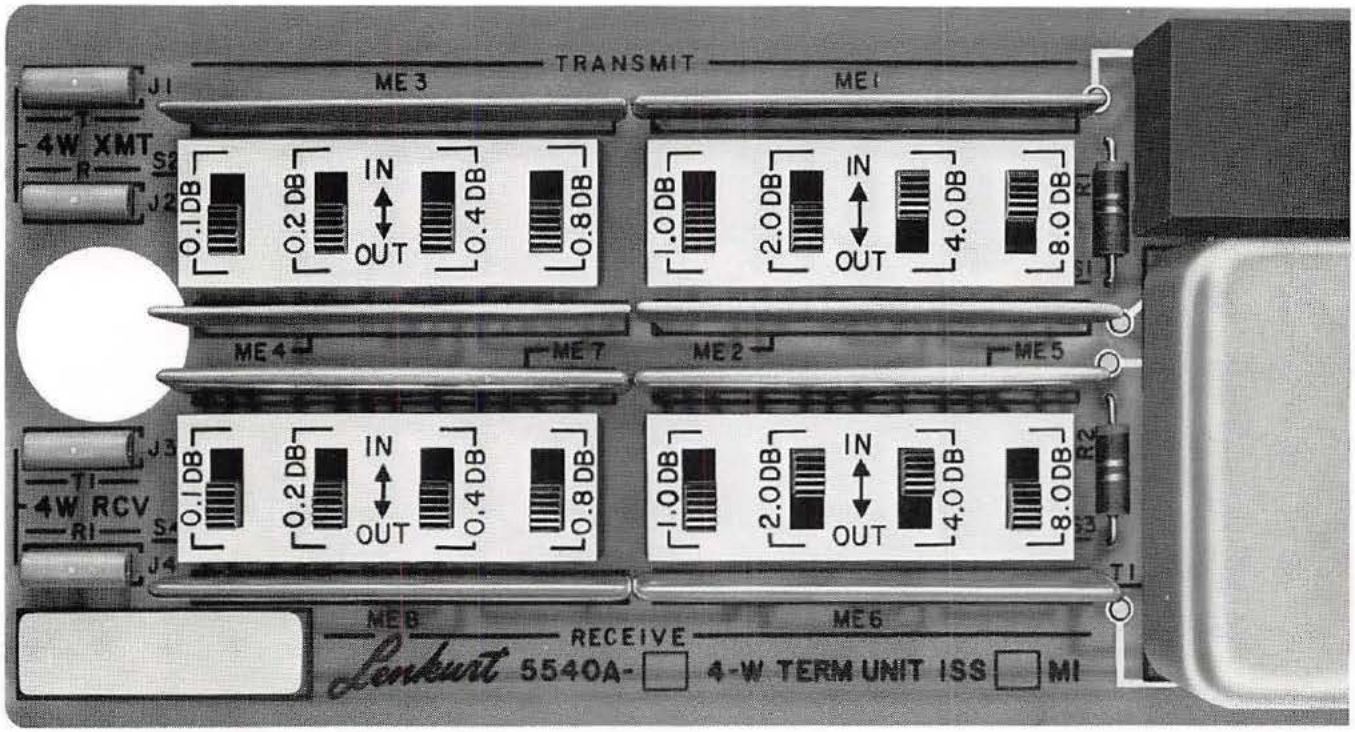
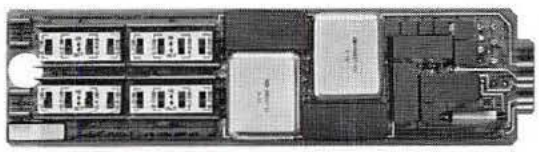
Our new $65 four-wire term set for people who'd rather switch than fight.



Now you don't need to fight a huge inventory of extra pads when you want to make adjustments. Flick a few switches, and it's done.



On our new 5540A four-wire term set, we've replaced traditional resistor pads with a series of switches with gold-flashed contacts. With these switches, you make loss adjustments from 0 to 16.5 dB in 0.1 dB steps. Thereby meeting future network requirements. And notice the price: $65.

That's even cheaper than it sounds. Because now you won't need an expensive inventory of pads. With our switchable pads, you cut adjustment time to a fraction of what it used to take. And save space by fitting 12 units in 2 mounting spaces on a 19" rack. Why fight it?

You get the advantage of plug-in units. Either 600 or 900 ohm option. And with transhybrid and return loss that meet DDD intertoll requirements. You also get A, B, D, F, and G leads. You see, in addition to being the least expensive term set you can buy, it's also the most advanced.

How's that for a switch?

Write GTE Lenkurt Incorporated, Dept. C720, 1105 County Road, San Carlos, California 94070.

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everything you wanted to know about fasteners*

Bethlehem Standard Fasteners
Bethlehem Standard Fasteners
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*but didn't know where to look.

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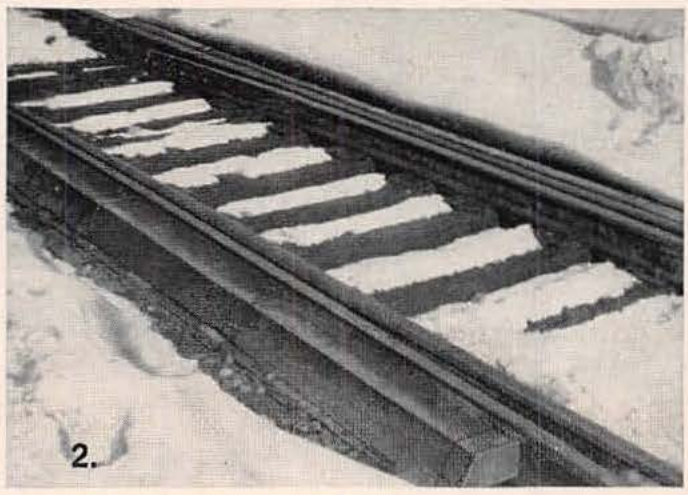
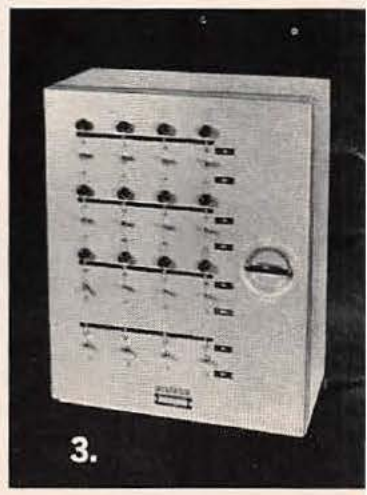
Programmed operation automatically keeps switches clear of ice and snow...

Photo courtesy of The Atchison, Topeka and Santa Fe Railway Co.





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In Canada, Vapor Canada Limited.

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SINGER
TRANSPORTATION EQUIPMENT

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RAILWAY AGE

March 8, 1971 • Vol. 170 No. 5

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National Press Bldg.
Washington Editor: Reid Beddow

Brighton, Sussex, England
8 St. George's Place
International Editors:
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Special Projects: Joe W. Kizzia

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Inside

LUTHER MILLER

RAILPAX, Cont'd.

The tangled tale of Railpax is as tangled as ever; there are still far more questions than answers, as the report on p. 49 indicates. On thing is becoming very clear: Congress gave the railroads a tough Act to follow. Certainly, much of the burden of getting Railpax rolling falls on the railroads. It is up to them, for example, to negotiate labor protection agreements with the unions. It is up to them to try to meet the Railpax lawyers' exacting demands in negotiating operating and service contracts. All of this is part of the price of admission. Railroads that cannot or will not pay the price must continue to operate present money-losing services at least until Jan. 1, 1975. Two roads are reported to feel that this will be cheaper than meeting Railpax's requirements. There could be others.

OPTIMISM AT L'ENFANT PLAZA

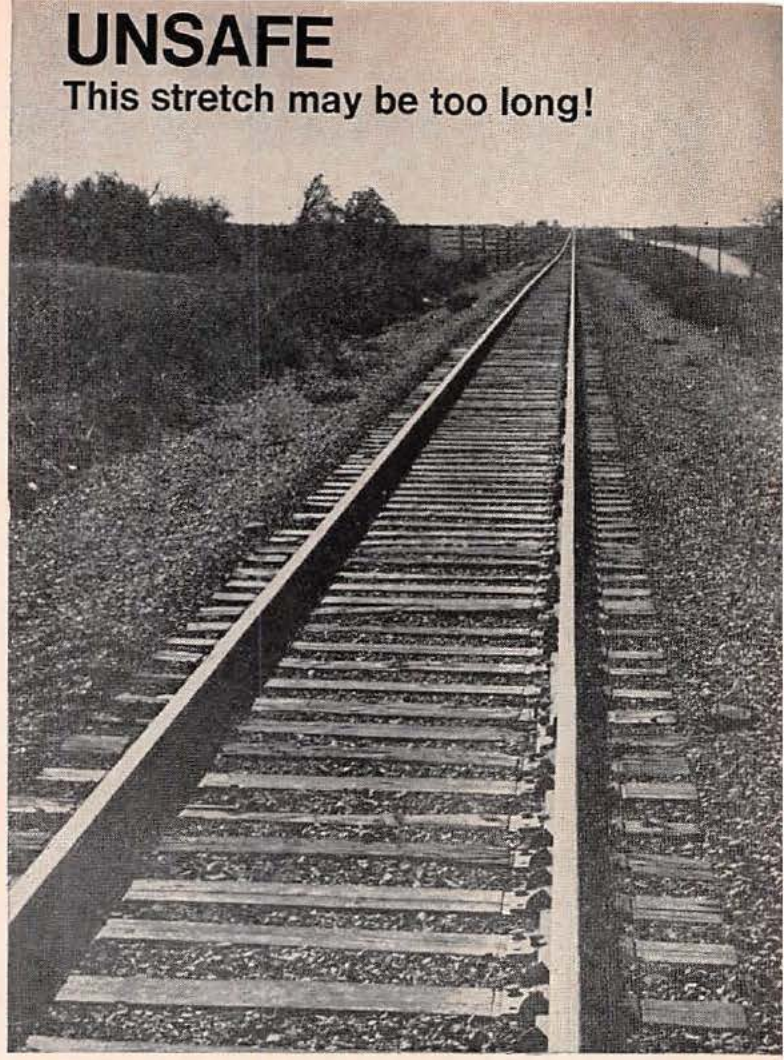
While the birth pains of Railpax seem likely to be severe, there is a strong feeling at Washington's L'Enfant Plaza, where the corporation has set up shop, that the infant will grow to maturity quickly and may even prosper after some inevitably lean starting years. Where there was considerable pessimism just two months ago, there is now optimism. The incorporators feel that the corporation's problems may have been over-emphasized, and its real potential correspondingly down-played. They are confident, at this juncture, that if the public is patient, and expects no overnight miracles, Railpax will come of age as a strong and independent member of the transportation community.

"Independent" is the operative word. It will augur ill for the future of Railpax if its creators use their considerable muscle to force railroads (and their freight customers) to contribute hidden subsidies to the enterprise.

The incorporators have no easy task—nor do the railroad men on the other side of the bargaining table. All who love trains—more importantly, all who cherish the economics of down-to-earth, common-sense transportation—must wish them well.

KEEPING M/W COSTS IN LINE

One difficult question that Railpax and railroad lawyers are wrestling over is who-pays-for-track-maintenance. The rising costs of maintenance will be one of the over-riding concerns of railroad engineers who will gather for the AREA sessions in Chicago next week. The 100,000 members of the Brotherhood of Maintenance of Way Employes have just won a 46½% pay increase, spread over three years. What this could do to M/W budgets is all too clear. All of which makes Engineering Editor Merwin Dick's report on how Illinois Central is getting more for its maintenance dollar (p. 23) more timely than ever.



Our new rail-mounted SERVOSAFE® Hot Box Detective™ prevents axle burn-offs and derailments.

It's a good thing to have on your railroad.

But, for safety's sake, don't stretch a good thing!

Do you have long stretches of track without SERVOSAFE protection?

Recent studies have revealed that such factors as heavier car loadings, faster train speeds and greater accelerations have combined to increase the incidence of overheated journal boxes. This has prompted many railroads to review their spacing of hot box detectors. Up to now, the average spacing has been 25 to 30 miles apart along line-of-road. Under today's conditions, however, a hot box can develop in less than 25 miles and cause a derailment *between* detectors.

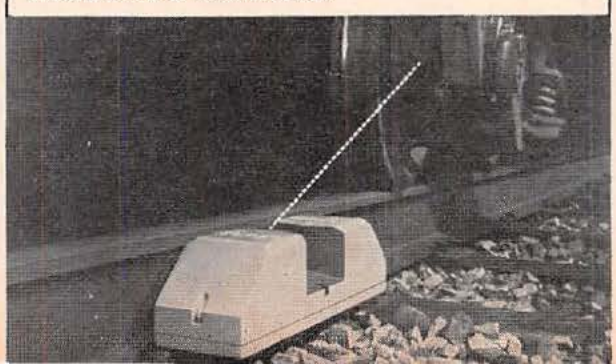
One solution becomes self-evident: closer spacing of hot box detectors for more protection. A SERVOSAFE system will not prevent a hot box—but it will detect, locate and warn of a hot box before the condition worsens into a dangerous, costly axle burn-off and derailment!

Will it cost you more to get this additional SERVOSAFE protection? Not really. Here are some reasons why not:

Our new Model 8808 SERVOSAFE system features patented rail-mounted scanners and solid state electronic data processing for the fastest, most precise detection of hot boxes. It allows remedial action to be taken *before* a failure occurs, and helps cut down the high costs of major salvage or replacement. The cost of installation and maintenance is appreciably reduced by eliminating the need for concrete foundations, special ties and expensive roadbed preparation. The rail-mounted scanner can be easily removed for maintenance or relocation. Finally, compare the cost of a SERVOSAFE with the $200,000 involved in just one derailment that could be prevented.

That's why most prudent, progressive railroad managements agree when we say, "More SERVOSAFE protection isn't costly—*lack of it is!*"

Model 8808 SERVOSAFE Hot Box Detective Rail-mounted scanner "looks" at journal bearing behind truck frame with a vertical, close-in target scan for greater uniformity and accuracy. Scanner is securely clamped to the rail (no drilling required). Accuracy is not affected by rail pumping, running or lateral movement.



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MEMBER RPI

Circle 4 on card opp. page 38

RAILWAY AGE

MARCH 8, 1971

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Short and Significant

THE INDUSTRY

MILLS WILL PUSH FOR TAX CREDIT

Democratic strategists in Congress have prepared a bill to reinstate the 7% investment tax credit, which they say will stimulate $50 billion in new capital spending by U.S. business. House Ways & Means Committee Chairman Wilbur Mills (D-Ark.) is sponsor of the bill; it is hoped the measure will pass by May 1.

RAIL URGED AS PIPELINE ALTERNATIVE

A conservationist group is urging the Federal government to investigate rail transportation as a "serious alternative" to a proposed 789-mile pipeline for removing oil from Alaska's North Slope. The group, which calls itself FOE (for Friends of the Earth), says the hot-oil pipeline "would disturb wilderness and countless species of wildlife in hundreds of ways." FOE claims rail transport would provide a "safe and steady" if slower rate of removal.

LIR'S LABOR COSTS ESCALATE

The Long Island Railroad expects wages and fringe benefits to consume its entire operating revenues in 1971—a big reason why the state-owned commuter line is anticipating a $43-million operating loss. In 1970, when the line experienced a $25-million loss, labor's bite was 94% of revenues totaling $96 million. In 1969 labor costs consumed 68.8% of the revenue dollar.

NORFOLK SOUTHERN IS BACK IN THE BLACK

Norfolk Southern has reported a $502,387 net profit for 1970, compared with a loss of $64,631 in 1969. Operating revenues rose from $12.1 million to $13.2 million, and net railway operating income was up from $452,870 to $762,902. Commented President Henry Oetjen: "Needless to say, we are pleased." He said the improvement came not only from increased freight rates but also from a steady increase in on-line industries.

TRANSIT

ROHR WILL BUY CONCRETE COMPANY

In a move designed to strengthen its position in the transportation field, the Rohr Corp. of Chula Vista, Calif., has announced plans to acquire the San Diego Prestressed Concrete Co. Frank E. McCreery, Rohr president, noted that prestressed concrete "is used extensively for support structures and guideways for rail transit systems, air-cushion vehicles and 'people mover' systems."

MORE FEDERAL DOLLARS FOR TRANSIT STUDIES

Supplemental grants totaling more than $500,000 have been awarded to Atlanta, Ga., and Dade County, Fla., by the Department of Transportation for rapid-transit studies. A grant of $345,333 to the Metropolitan Atlanta Transit Authority augments an earlier grant of $400,000 made in January 1970. It will help MARTA define specific routes, station locations and costs of a regional rapid system for the Atlanta area. Metropolitan Dade County's new grant of $176,390, supplementing $266,180 awarded in October 1968, will permit expansion of a Miami-area transit study to include Broward and Palm Beach counties.

RAIL LINKS FOR KENNEDY AND NEWARK?

If the governors of New York and New Jersey have their way, the Port of New York Authority will finance construction of high-speed rail links from Penn Station in Manhattan to (1) Kennedy International Airport on Long Island and (2) Newark Airport. But while Governors Nelson Rockefeller and William T. Cahill have agreed to support each other on airport rail lines within their respective states, problems remain. For one thing, Governor Cahill is reported to want the Port Authority to invest the same amount of money in New Jersey that it invests in New York. New legislation may also be necessary if the bi-state agency is to put profits from its bridge, tunnel and other enterprises into non-profitable mass transit.

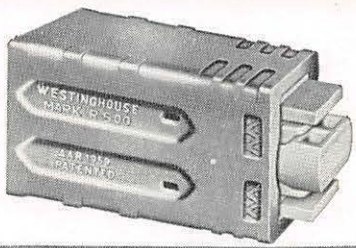
DULLES WILL GET TACV LINE

In a surprise move, the Department of Transportation has announced it will build the nation's first TACV (tracked air-cushion vehicle) line not in Los Angeles, as originally announced, but along the median-strip of the Dulles International Airport access road outside of Washington, D.C. There are three potential bidders for the $25-million, 13.5-mile project—Rohr Corp. of Chula Vista, Calif; LTV Aerospace of Dallas; and Grumman Aerospace of Bethpage, L.I. DOT Secretary John A. Volpe said the line is scheduled to be completed in time for the International Transportation Exposition to be held at Dulles May 27-June 4, 1972.

SMOOTH CONTACTS

MARK 50

MARK R-500



By keeping damage and maintenance to a minimum, Westinghouse Draft Gears Mark 50 and Mark R-500 smooth contacts with cars and shippers.

Mark 50 and Mark R-500 feature the exclusive Westinghouse patented friction clutch mechanism which guarantees smoother performance in coupling and train operations—and with economy. Friction parts located on inner surfaces eliminate wear on the housing, the most costly part of the gear. Long life and reuse are assured.

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MEMBER RPI

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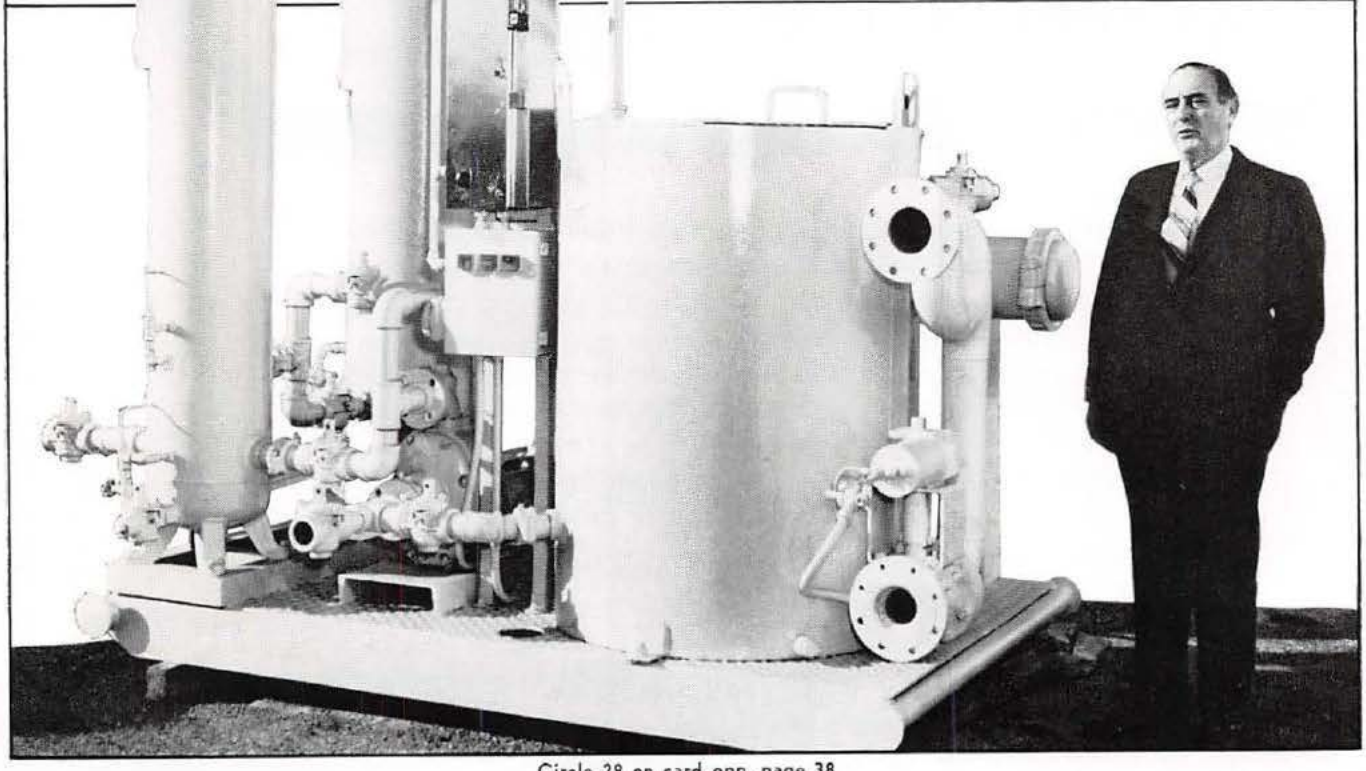

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RAILWAY AGE NEWS

CN's Turbos face uncertain future

Canadian National's Montreal-Toronto Turbo service, suspended Feb. 2 after two of the three seven-car trains developed mechanical problems, may or may not be resumed when repairs have been made. Right now the whole future of CN's Turbos is in doubt.

The immediate cause of difficulty is relatively simple. One of the trains lost a collector gear box. An electrical malfunction crippled another. The remaining standby train was used to provide half-schedule service for three days. Then came the suspension.

Longer-range considerations are now being weighed. One is financial. Another is the prospect of additional technical modifications proposed by United Aircraft, which supplied the trains. A final decision on the Turbos' future is to be made within the next few weeks.

Should the trains be permanently returned to United Aircraft, an effort would be made to place them in service elsewhere. Feelers have already been put to United Aircraft, by unspecified interests, that would like to test the Turbos at various locations in the U.S.

Meanwhile, United Aircraft has an order for four additional cars, from the U.S. Department of Transportation, to be added to the Turbotrain service now being provided between Boston and New York. It is possible that this order could be filled from the CN equipment, if it is returned to the builder.

There has been speculation in Canada that the new LRC (for light rapid comfortable) train being developed by three Canadian companies could affect the decision on Turbo service. That is not likely, however, since delivery of the first prototype LRC coach is still some weeks away and the trains are not likely to become operational before 1973 by the most optimistic timetable.

The LRC train, which is described as low-slung and futuristic looking, is being developed by Aluminum Company of Canada, which is handling structural design and supplying aluminum; Dominion Foundries & Steel Ltd., which is designing and supplying the suspension system; and MLW-Worthington Ltd., which is designing a locomotive (expected to be ready within a year) and assembling all components.

New Jersey may shop overseas for cars

The State of New Jersey, which is drawing up new specifications for up to 70 m-u commuter cars it will purchase for service on the Penn Central, will seek to interest bidders in Europe, Japan and Canada as well as in the U.S.

That announcement from State Transportation Commissioner John C. Kohl came after bids submitted by Pullman-Standard and General Electric were turned down because the U. S. Department of Transportation, which was to pay two-thirds of the cost, found them too high. These bids covered the supply of up to 144 new cars for the Southeastern Pennsylvania Transportation Authority, with New Jersey piggybacking on the SEPTA order.

In explaining rejection of the bids, a U.S. DOT spokesman told Railway Age: "If we cannot afford a solid gold Cadillac, maybe we should go for an Oldsmobile."

The low bids for the cars, by Pullman-Standard, came in at close to $400,000. Reportedly, there were options, calling for the use of Japanese or Swedish propulsion and control equipment, which would have brought the price down. The possibility that the order for this equipment might go overseas caused a political outcry in Pennsylvania, which has two manufacturers —General Electric and Westinghouse Electric—which build such equipment. The U.S. DOT, which has said it has no Buy American policy, denied that this was a factor in rejection of the bids.

New Jersey's Kohl did not mention this in his Feb. 23 statement that New Jersey may "go it alone" in procuring cars. He did say that the state is prepared to buy the cars abroad if that turns out to be the most economical way. In addition to bids from Europe, Japan and Canada, Kohl also said he hoped to interest the Rohr Corp. in the order. Rohr was essentially an aerospace firm before it won an order to supply cars for BART.

In announcing that New Jersey may decide to seek its own cars independently of SEPTA, Kohl said that while it is still hoped that the U.S. DOT will put up two-thirds of the cost, New Jersey is prepared to dig deeper, if necessary, into its own funds. (Of a $640-million transportation bond issue approved by the state's voters in 1968, some $200 million was earmarked for rail improvements.)

M.I.T. plans program in systems analysis

A. Scheffer Lang and three associates at the Massachusetts Institute of Technology—Professors E. G. Frankel, M. L. Manheim and R. W. Simpson—will conduct a two-week program in Analysis of Transportation Systems at M.I.T. Aug. 16-27.

Lang, the former Federal Railroad Administrator who now heads M.I.T.'s Transportation Systems Division, says the special summer program will present "the basic concepts and techniques of transportation systems analysis and engineering. Problems of policy, planning, design, and operations will be treated in an integrated manner. The perspective will be multi-modal, with treatment of problems in all modes of transportation, as well as in intermodal systems."

Basic concepts and techniques will be covered in the first week. In the second week, case studies will illustrate the application of those concepts and techniques to specific problem areas. Each of the two weeks may be taken separately.

Information is available from the Director of the Summer Session, Room E-19-356, M.I.T., Cambridge, Mass.

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NEWS

ICC moves to protect commuter lines

The ICC Feb. 17 laid down guidelines to prevent mass discontinuances of commuter and other short-haul passenger service after May 1 when Railpax goes into effect.

They came in a decision ordering the Penn Central to keep in operation 12 out of 20 Boston-to-Providence trains the road wanted to drop. PC was permitted to change the schedules of two other trains along the route.

Under Railpax, about 55-to-60% of intercity passenger trains will be discontinued after May 1 (assuming all rails join the Railpax corporation). But Section 102 of the Railpax act excludes commuter service from the Railpax system.

Definition of such service, says ICC, includes "one or all of the following features":

—The passenger service is primarily being used by patrons traveling on a regular basis within a metropolitan area or between a metropolitan area and its suburbs.

—The service is usually characterized by operations performed at morning and evening peak travel periods.

—The service usually honors commutation or multiple-ride tickets at a fare reduced below ordinary coach fare.

—The service makes several stops at short intervals either within a zone or along the entire route.

—The service should not extend more than 100 miles at most, except in rare instances; although service over shorter distances may not be commuter or short haul within the meaning of the exclusion.

ICC said the Providence-to-Boston route was 44 miles long and "manifestly commuter" in nature.

However, ICC left the door open for future discontinuances of the trains by noting that PC may seek to drop service again in six months.

Noted ICC: "The rapidly changing rail passenger picture and the continuing financial slide of the Penn Central must be more frequently reexamined than in years past. While our conclusion is not an invitation for the carrier to seek discontinuance anew at the expiration of the six-month period, it is a declaration of our intention to keep close surveillance over Penn Central's operation to the extent of our jurisdiction and it will provide the rail carrier with the opportunity to examine passenger use trends under the new arrangement."

Rail-safety aid sought by states

The National Association of Regulatory Utility Commissioners has asked President Nixon to support a supplemental appropriation of $3.5 million in the 1971 budget of the Department of Transportation as grants-in-aid for regulating the safety of railroad operations.

Goerge L. Bloom, president of NARUC and chairman of the Pennsylvania Public Utility Commission, said "the provision of such financial assistance to State agencies, on a matching basis, will reduce the need for establishing a large Federal field staff and thereby permit the Congress to implement its national safety program for far less than what it would otherwise cost for the Federal government to assume the entire financial burden."

DOT urges speed in rate cases

The Department of Transportation all but told the ICC on Feb. 23 that the Commission in the future should hurry up decisions on railroad rate requests during period of economic distress for the industry.

The suggestion came in recommendations to the ICC about the nature of the Commission's Ex Parte 270 investigation of the railroad rate structure.

The ICC should find out, said DOT, what "action should be undertaken . . . to assure that future rates can and will be promptly adjusted in accordance with the changing economic environment." DOT said ICC should also determine whether rails should be free to price their services between an ICC-fixed maximum and the variable-cost level.

UP ready to build its chemical line

Union Pacific will begin work by March 18 on a new 13.5-mile line from Hot Springs, Utah, to the Bear River Bay area on the shores of the Great Salt Lake. Completion of the line in September will signal the end of the railroad's long battle for the right to serve the area's burgeoning chemical industry, noted UP President Edd H. Bailey.

"UP has long been interested in the chemical potential of the Great Salt Lake and was one of the early firms to investigate the possibilities of chemical production from the lake," said Bailey. But to get the $1.25-million project under way, it took a ruling by the U.S. Supreme Court on Nov. 23, 1970, affirming the road's right to construct the new line, and reinstatement of a permit originally issued by the Interstate Commerce Commission in 1969 granting Union Pacific authority to build the line.

BN set to start on Northtown Yard

It will cost upwards of $30 million, it will take about three years to complete, it will be the biggest facility of its kind on Burlington Northern: That's Northtown Yard, which BN will be building in the Twin Cities area beginning this spring. Northtown has been a key element in BN pre- and post-merger planning. When it is in full operation in 1974, it will go a long way toward eliminating delays which BN now encounters in moving traffic through the congested Minneapolis-St. Paul terminal. Northtown's 64-tract classification yard will have standing capacity for about 2,500 cars—and BN is expecting to be moving about 5,000 cars through the facility daily. An 11-track receiving yard will hold up to 1,400 cars; eight departure-yard tracks, will have 150-to-200-car capacity each. Also planned are construction of a diesel servicing and maintenance facility with 25-unit capacity; and a one-spot car-repair facility capable of handling 70 cars at a time.

TRANSIT ROUNDUP

ATLANTA: The Georgia House of Representatives on Feb. 23 approved legislation which will permit Atlanta-area governments to levy a 1% rapid-transit sales tax, subject to approval by voters in a referendum. The House vote was 159 for, 15 against.

Atlanta and the four county-members of the Metropolitan Atlanta Rapid Transit Authority had asked for a local sales tax of three-fourths of 1%. The House raised the proposed levy to a full 1%, with the extra one-fourth of 1% to represent the 10% of the total cost of the system the State of Georgia is authorized to pay under existing law.

MARTA is proposing a $1-billion mass transit rail/bus system.

BOSTON: Directors of the Massachusetts Bay Transportation Authority on Feb. 24 authorized the filing of applications for $322 million in Federal aid for transit improvements.

The requests would provide Federal grants for the following projects: Southwest Corridor, $104 million; Harvard-Alewife Extension, $100 million; Green Line improvements, $36 million; Pines River extension, $21 million; Weymouth/Holbrook Extension, $20 million; 600 new buses, $15.3 million; three bus garages, $9.2 million; power distribution improvements, $6 million; station modernization, $6 million; plant modernization, $4.5 million.

To pay the local share of these improvements, MBTA is asking for an increase of $250 million in its bonding powers.

DALLAS-FT. WORTH: The Dashevayor Co. of Los Angeles, in a joint venture with Morrison-Knudson Co. of Boise, Ida., and Fischbach & Moore of New York and Dallas, is the apparent low bidder for a total automatic transportation system for the new Dallas-Ft. Worth Regional Airport.

The Dashevayor bids ranged from $36,639,000 to $46,239,000. The only other bids—submitted by Varo, Inc., of Dallas in partnership with Ling-Temco-Vaught—ranged from $48,512,000 to $65,765,000. Dashevayor bid on construction of a prototype system was $3,300,000. Varo's bid for a prototype was $13,744,000.

WASHINGTON: The U.S. Department of Transportation is releasing $68 million of Federal matching funds to assist the Washington Metropolitan Area Transit Authority to meet short-term financial obligations. In announcing this, DOT Secretary John A. Volpe expressed confidence that "an effective solution" to Metro's long-term financing problems can be found. (Transit-vs-highway wrangling in Congress has held up the release of Federal funds authorized for the Metro project.)

Said Volpe: "The important thing is that this subway must continue. It offers us the best solution to our transportation dilemmas."

METUCHEN, N.J.: The U.S. DOT has awarded $1 million to New Jersey to cover two-thirds of the cost of a new, enlarged and relocated commuter station on the Penn Central's main line between New York and Philadelphia in Metuchen. The new station will save commuters 6-to-8 minutes on the New Brunswick line.

CARACAS: The Venezuelan cabinet has approved credits for about $117 million for construction of the first five miles of the Caracas subway. Work is scheduled to begin in July of this year, with completion due in 1974. All rolling stock, electrical equipment and rails are to be imported. Interested U.S. suppliers should get in touch with the Oficina Ministerial de Transporte Ministerio de Obras Publicas, Edificio Camejo, Caracas. So far, say reports from Caracas, foreign suppliers have been more aggressive in promoting their equipment and services in Caracas than their U.S. counterparts.

DENVER: The Regional Transportation district has picked Development Research Associates of Los Angeles and Wallace, McHarg, Roberts & Todd of Philadelphia to draw up a master transportation plan for Denver. The plan will go to voters in 1974.

NEWS

At Missouri Pacific, East meets West

The twain don't meet, if you consider things narrowly. Missouri Pacific does not go west of Colorado, and that's a long way from Japan. But it was MoPac which was chosen as a training ground in U.S. transportation by N.Y.K. Steamship Lines for Takashi Suzuki. He'll be spending six months with MoPac, looking at all phases of the road's total-transportation operations, in a specially-designed training program. MoPac, it should be noted, has a traffic office in Japan; N.Y.K. now operates three containerships between the U.S. and the Far East. Meeting with Suzuki (second from right) at the start of his MoPac stay were (from left) C. T. Groton, president of MoPac Truck Lines; Mamoru Sato, N.Y.K. chief resident representative in Chicago; Downing B. Jenks, president of MoPac; and J. A. Austin, VP—traffic.

BN will expand its telephone net

Burlington Northern has awarded a $1.2-million contract to Stromberg-Carlson Corp. to merge and enlarge the railroad's telephone systems into an integrated network. S-C will supply three new tandem switching centers and enlarge five existing S-C equipped centers. The resulting network will link 46 private automatic branch telephone exchange (PABX) systems along the railroad.

S-C 4-wire switching systems had previously been installed for two of BN's predecessor railroads, Great Northern and Northern Pacific. New centers will be installed at Great Falls, Mont., Superior, Wis., and Fargo, N.D. Centers at Seattle and Spokane, Wash., Billings and Missoula, Mont., and the BN headquarters in St. Paul, Minn., are to be enlarged. S-C is also providing planning assistance, consultation services and training for BN's communications personnel.

The telephone systems are designed for the specific needs of BN and offer custom calling features such as the ability to dial a 10-party "meet me" conference. This permits up to 10 parties anywhere along the network to dial a number at a predetermined time. If less than 10 parties are engaged in the conference, the remaining access lines can be made busy to ensure privacy.

D&RGW, UP moving coal for Japan

Utah coal is helping the Japanese steel industry meet its production goals—and Rio Grande and Union Pacific are the first links in the logistics of getting the coal to the mills. The two roads are jointly operating a new unit train between Kaiser Steel's Sunnyside mine and the docks at Los Angeles, on a schedule providing for an 1,800-mile roundtrip every four days. Contracts with the Japanese steel industry call for shipment of about $125 million worth of high-quality coking coal over a 10-year period; annual tonnage to be moved by the unit train will run to about 750,000 tons, with each train (powered by four 3,600-hp units) hauling 8,400 tons in 100-ton gondolas.

Nationalization: the AP takes a look

U.S. railroad men have long argued that nationalizing the railways, far from solving any problems for taxpayers, would only impose staggering burdens on them. Now, an independent, worldwide survey conducted by the Associated Press has produced statistics which seem to support this contention.

The AP's survey of Britain, France, West Germany, Switzerland, Italy, Japan and Canada showed that nationalized railways in these countries are losing more than $1.5 billion a year. Only Switzerland showed no deficit among those countries surveyed. The AP survey covered the year 1969.

The wire service's survey turned up these deficits (figures are given for 1969 vs 1959): Italy, $504 million vs $72 million; Japanese National Railways, $365 million vs $9.6 million; French National Railways, $355 million vs $40 million; West Germany, $273 mllion vs $4 million; Canadian National, $25 million vs $43 million.

The AP noted that while British Railways claimed a $35.28 million profit, this did not take into account $36 million the government granted for eliminating surplus track or $146 million paid out to subsidize commuter and rural passenger service. Without government grants, said the AP, BR's loss would have been $157 million.

WABCO's Thayer gets post on RPI panel

S. F. Thayer, manager-mass transit equipment marketing for Westinghouse Air Brake Division of WABCO, has been appointed vice chairman of the Railway Progress Institute's Committee on Public Mass Transportation. The committee is headed by James C. Pontious, marketing manager, transit, Pullman-Standard.

The committee, whose primary function is to promote public rail transportation, will serve as the railroad industrys' advisory committee to the Department of Transportation in the allocation of Federal mass-transit aid.

In snowy Cleveland, only the trains ran

"Storm snarls buses; rapids run on time," was the headline in the Cleveland Plain Dealer Feb. 9, the day after a blizzard all but paralyzed the city. With buses bogged down, reported the Plain Dealer, Transit System trains were running "close to time" and the Shaker Rapid cars "dead on."

Robert T. Pollock, CTS general manager and chairman of the Urban Transportation Task Force, said the blizzard provided proof that the metropolitan region needs more rail transit: "An area-wide rail commuter system would have whisked passengers through the troubled areas in a matter of minutes."

A five-county rail network is one of the prime targets of the Task Force which Pollock heads.

ACF's Correa named to TAA office

Henry A. Correa, president of ACF Industries and chairman of the Railway Progress Institute, has been elected corporate vice chairman of the board of governors of the Transportation Association of America.

TAA's six-man board of governors is augmented by a 115-member board of directors. Among new members elected to the board at TAA's annual meeting in Chicago early in February were Stephen Ailes, who became president of the Association of American Railroads on Jan. 1; John P. Fishwick, president of the Norfolk & Western; and Bryce W. Wyman, vice president and general manager, transportation systems division, General Electric.

ICC ties strings to WP notes

The Interstate Commerce Commission has told the Western Pacific it may issue $6 million of short term notes if it uses the proceeds solely as railroad working capital. It was the first time the ICC has placed such conditions on railroad notes.

In approving the issue, ICC said there was no "concrete indication that the involved funds would be applied to other endeavors." But it said the approval was contingent on a ban against the carrier using the $6 million for dividends, advances to affiliated companies, encumbrance of any assets for non-carrier purposes, or engaging in any other transactions with its affiliates and subsidiaries.

ICC sources said the Commission would severely examine all such issues in the future, this being part of ICC's policy, formulated in the wake of the Penn Central bankruptcy, against diversion of rail assets to non-transportation uses. The Commission, these sources said, intends to propose legislation this year to further that policy.

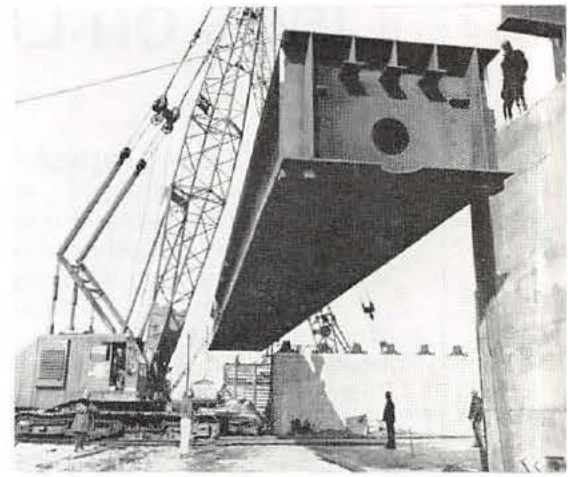
Ronan protests cuts in transit budget

"You can't fight city hall" is a time-honored New York cry—but Dr. William J. Ronan, chairman of New York's Metropolitan Transportation Authority, is giving it an earnest try. Ronan appeared before the Board of Estimate to protest a move that would cut the proposed capital budget for the New York City Transit Authority from $296.7 million to $91 million.

Ronan had asked for $122.2 million to buy 520 new air-conditioned, 75-ft. subway cars; the budget cut would provide only $23.5 million in city capital funds for this purpose, enough for only 100 new cars.

For improvement and renewal work on tracks, third rails, signals, stations and related facilities, NYCTA had asked $41.8 million; as cut, the budget would provide $12.2 million for these purposes.

To speed up the replacement of old signal equipment and cable, the NYCTA requested $27.85 million; the budget would make only $3.85 million available.



B&M and MBTA will share bridge

A new $9.1-million 11-span, four-track combination railroad/rapid transit bridge is being erected over the Mystic River between Somerville and Medford, Mass. Photo shows a 97-ton box girder being lifted into place at the south end of the bridge by Bethlehem Steel Corp. crews.

A line of box girders for the 965-ft-long, 64-ft-wide bridge will support one track unit for the Boston & Maine. Six lines of plate girders will next be erected alongside the box-girder line. The plate girders will carry three track units for a new Massachusetts Bay Transportation Authority rapid transit line being built to provide a link between downtown Boston and its northern suburbs.

Justice intervenes in Portland case

The Supreme Court has agreed to rule on an ICC order giving two of the four railroads which serve Portland, Ore., the right to control a switching railroad in the city's port. The ICC had said Union Pacific and Burlington Northern could control the line, whereupon the Justice Department's antitrust division intervened to ask that control be shared by the Milwaukee Road and Southern Pacific.

NEWS

Lines on Labor

GUS WELTY

NO NEWS IS GOOD NEWS?

It was a quiet weekend—no threats, no blustering, no clashing (or even rattling) of sabres. The nation's railroads and the United Transportation Union were heading toward another deadline—12:01 a.m., Monday, March 1. But nobody—perhaps least of all Congress—seemed really disturbed, worried or sufficiently motivated to do anything to make sure the trains kept running. The President had asked for authority to intervene, if such became necessary. But, Congress chose to ignore him—just as Congress has also chosen, thus far, to ignore his proposals for major revisions in railroad management/labor law. For the moment—for that final weekend in February—Congress guessed right. There was no news—strike news—and that was, indeed, good news. But at that point, there were also no guarantees that everything would wind up peacefully. And there was even less assurance that other pending disputes can be settled without resort to economic weaponry. So, regardless of the fact that March 1 passed without incident, the question remains: If the national interest is to be protected, can Congress much longer look the other way when labor-law reform is mentioned?

THE PRESIDENT'S PLAN: VARIATIONS ON A THEME

In his approach to the railroad/UTU problem, President Nixon called attention to three "overriding principles." First, he said, the health and safety of the nation must be protected. Second, "any proposal I make must be fair in its application." Finally, bargaining must be encouraged. Much the same set of principles was cited earlier in connection with the President's plan for changing the law itself. But on specifics, there are differences—maybe significant, maybe not.

SOMEHOW, SOMETIME, THERE'S GOT TO BE A BETTER WAY

If you put together everything that has been said and written about change in rail management/labor relations, you'd have a libraryful. You'd also have all colors and shades of opinion. Maybe you'd have room for a comment made some time ago by a real veteran in the business. He was talking, specifically, of the work-rules dispute, but his thoughts have broader applications. "This quarreling and wrangling has got to stop," he said. "Sometime, some place, somewhere, we've got to sit down and settle this thing. There isn't any question that unions and management can't resolve if they sit around the table." But at the same time, he declared existing means of settling disputes are less than ideal—and the day will come when both sides will agree to place disputes in the hands of an "impartial umpire." No, that's not a quotation from Dan Loomis or Doc Wolfe or Jack Hiltz, or anybody else from management or even government. The speaker was W. P. Kennedy, president, Brotherhood of Railroad Trainmen, 1949-1962.

South Shore asks support for subsidy

Chicago South Shore & South Bend is making an appeal for public support for a proposed Indiana Urban Mass Transportation Act which is now undergoing committee study in the legislature. If approved, the measure would permit the state public service commission to subsidize private and public carriers by amounts equal to their losses from passenger operations in the preceding 12 months. As written, the bill calls for an annual appropriation of $1 million; the commission would also have the authority to solicit, receive and administer funds which might become available from the Federal government or from Indiana cities for transit subsidy. CSS&SB itself lost more than $1.7 million on passenger operations last year—and, says President James B. McCahey, Jr., the proposed Indiana legislation offers "the best chance of preserving mass transportation in the state."

Court holds up "Piedmont" changes

The National Association of Railroad Passengers filed suit Feb. 22 to block the Penn Central and the Southern from rescheduling the "Piedmont," an overnight train operating between New York and Atlanta.

NARP asked the U.S. District Court in Washington for a temporary restraining order prohibiting the carriers from changing the schedule on grounds that the action violates the Railpax act which prohibits train discontinuances until rails join the new National Railroad Passenger Corporation.

The order was granted and a hearing set for March 8.

NARP said the new schedule would seriously inconvenience passengers traveling South through discontinuance of through car coach service between New York and Atlanta and of sleeper service between New York and Greenville, S.C., and by inconvenient connections in Washington's Union Station between Penn Central and Southern trains.

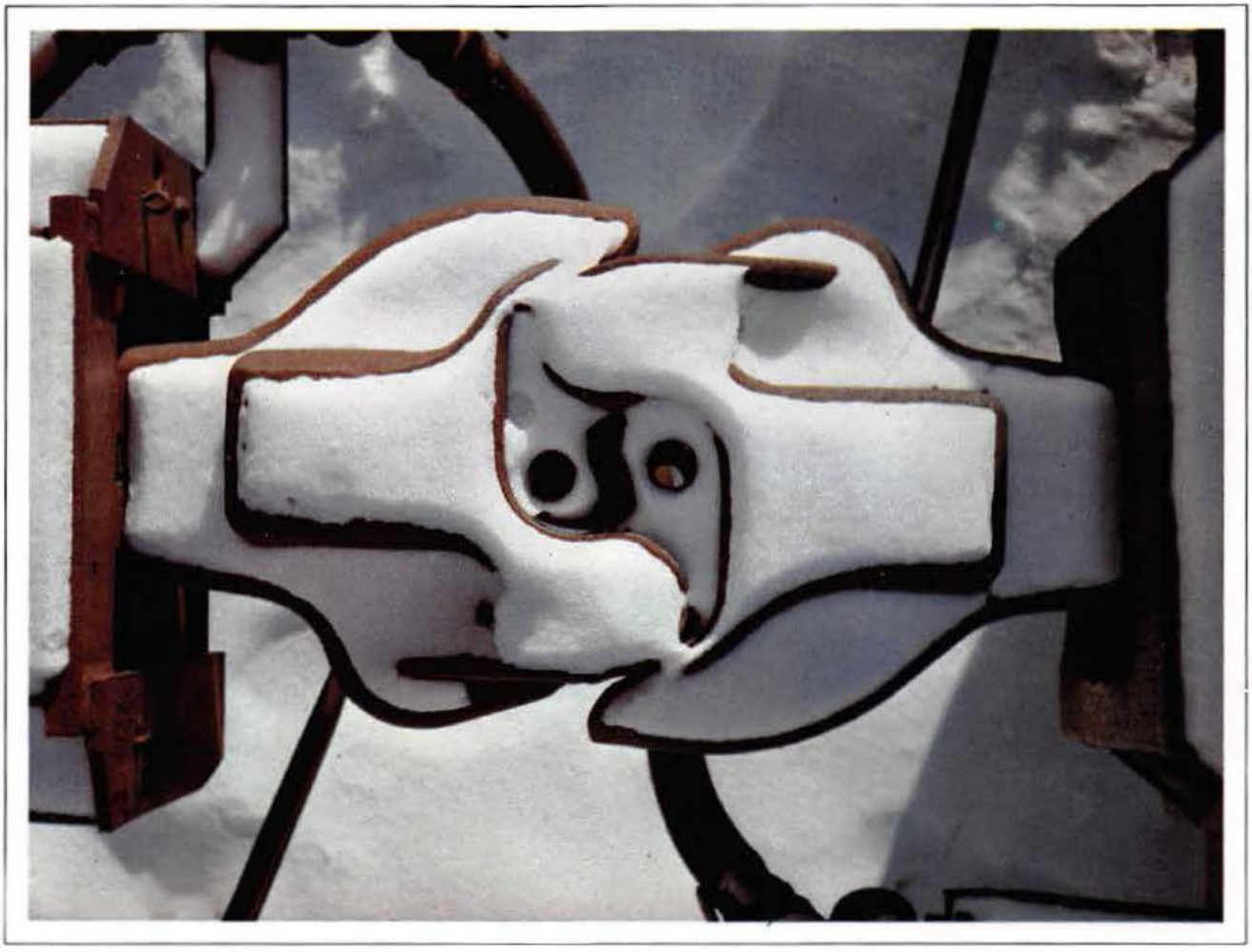


Photo by G. L. Thorp, Putney, Vermont—as printed in POPULAR PHOTOGRAPHY, November, 1970

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MEMBER RPI

A day in the life of a CTA car.

6:05 a.m.

Steelworkers begin arriving for the early shift on Chicago's south side. Nickel stainless steel gives the Chicago Transit Authority's newest fleet of cars enough brawn to serve riders dependably for years to come.

7:50 a.m.

The white-collar migration to the Loop surges and peaks. Cars carrying up to 150 passengers cannot compromise on safety—and the stainless combination of high strength, light weight and corrosion resistance is unique in its price range.

11:20 a.m.

Shoppers descend on stores like paratroop divisions. Bargain hunters in the railroad industry appreciate the long-range savings in power costs offered by lightweight stainless steel cars.

 2:45 p.m.

School's out. Stainless interiors withstand the hard knocks of horseplay longer and stronger than other materials. Stainless steel never needs painting or repainting. Lipstick and crayon scribbles come painlessly off stainless.

7:30 p.m.

Curtain time at the movies, and the good bleacher seats at Comiskey Park are filling up. Over 100,000 Chicagoans ride stainless CTA cars to work and play every day.

CTA's 150 new stainless steel transit cars will give Chicago safe, comfortable, dependable, economical service for decades. Shouldn't your city keep up with Chicago?

For more data on nickel stainless steel transit cars, write to Dept. RA371, The International Nickel Company, Inc., One New York Plaza, New York, N.Y. 10004. In Canada, The International Nickel Company of Canada, Limited, P.O. Box 44, Toronto-Dominion Centre, Toronto 111, Ontario.

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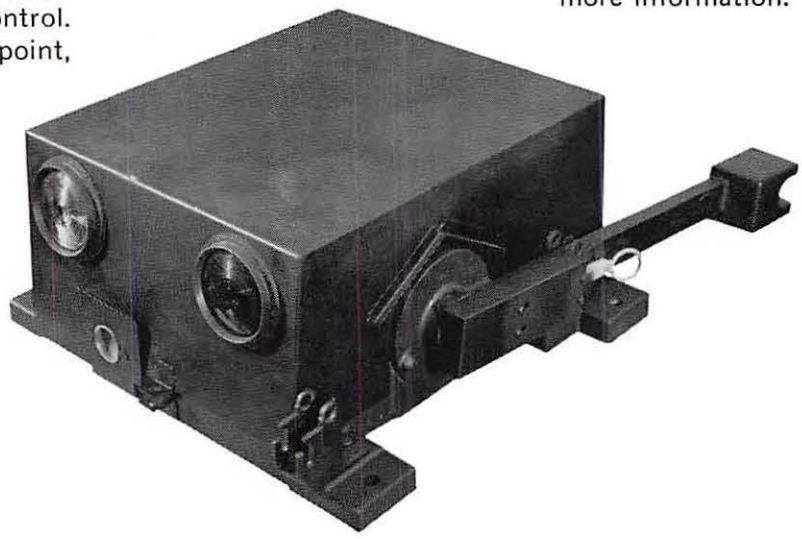

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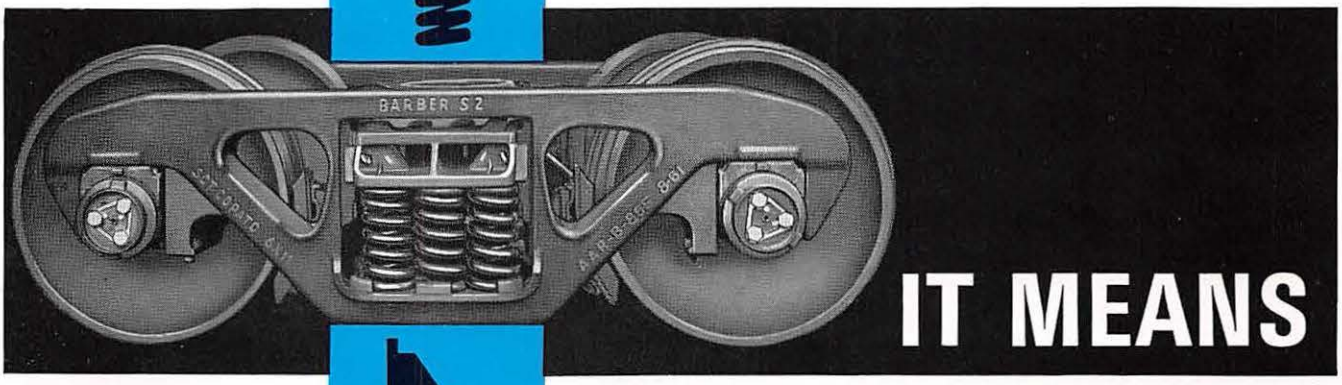

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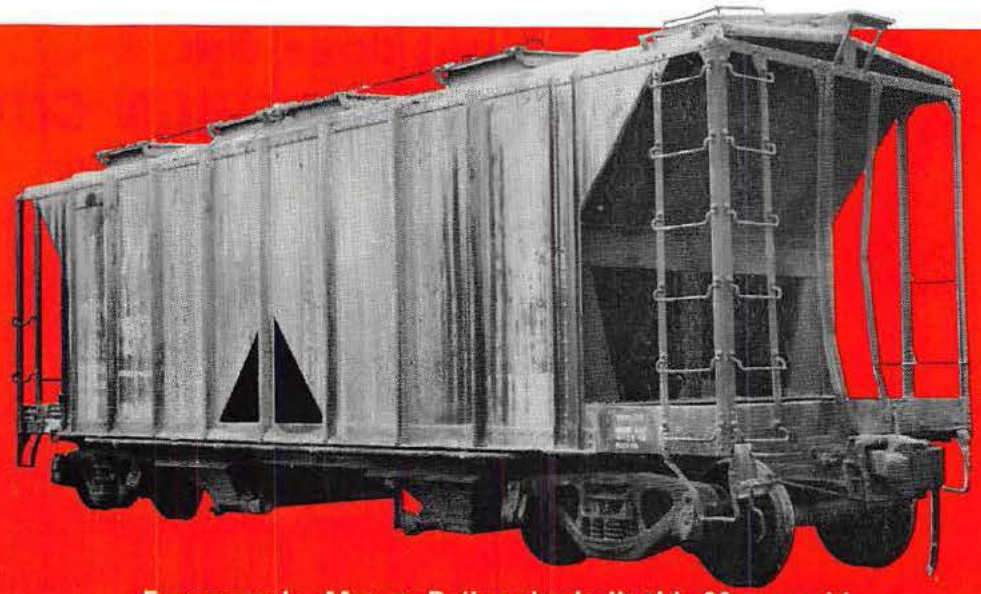

For example, Monon Railroad rebuilt this 20-year old square-hatch car with a Stanray round-hatch roof, a coat of paint and put it back in service, better than ever, at a great savings in time and expense.

Aside from the obvious savings incurred in rebuilding existing cars versus buying new ones, Stanray roofs can even make the rebuilding more profitable.

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We'll custom build your roof as to material thickness and number of hatches and then give you the option to save additional money. If you wish, we'll ship your roof assembled, including running boards, or we'll knock it down and ship it so that your own people can assemble it.

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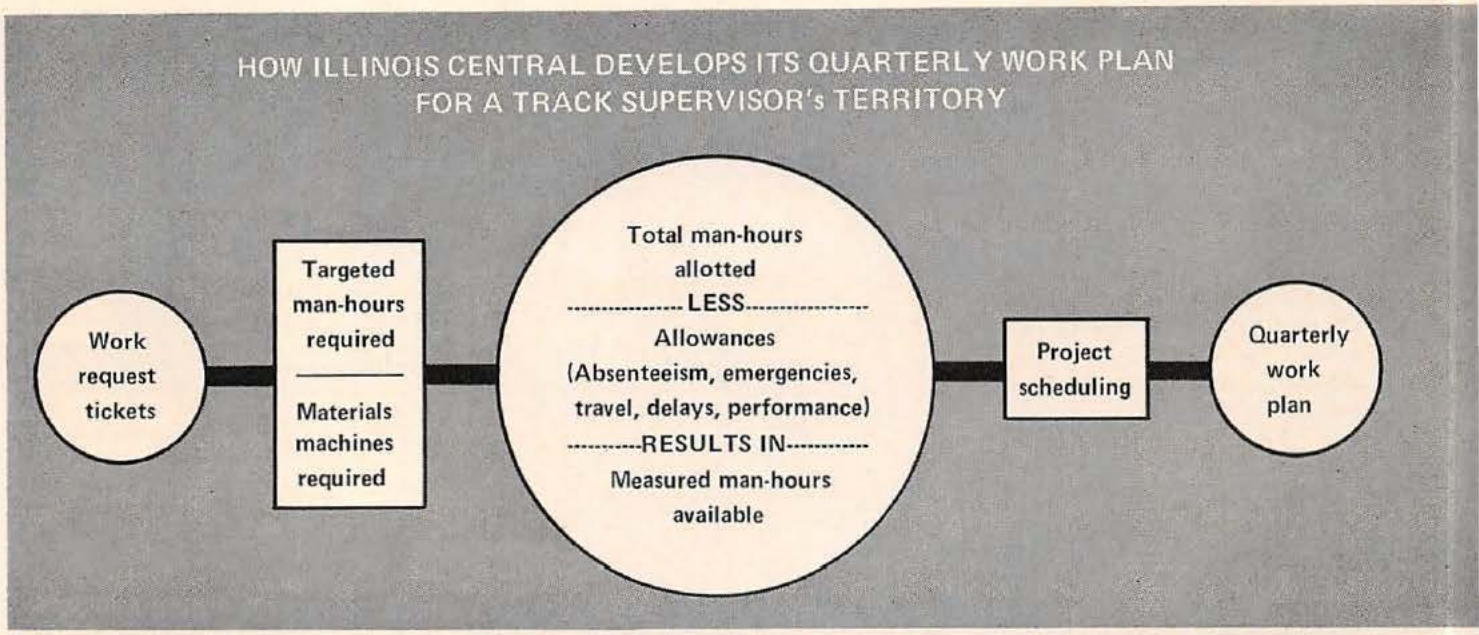

PREPARATION OF QUARTERLY WORK PLAN is where IC's M/W planning and scheduling system gets down to serious business.

New management techniques improve M/W productivity on IC

Top engineering officers of Illinois Central knew they were taking a big step when they decided to put into effect systemwide what they call their "planning and scheduling system."

They knew it would require considerable investment in time and money to carry out the necessary preliminary studies and to fashion the machinery required to implement the system. They knew it would mean for them, as well as for others, a revolutionary new approach to the planning and control of field work. It would mean, they also knew, more paperwork for them and for the people in the field.

● **Benefits being realized.** But they are glad now that the step was taken, for they can report that the benefits they expected to derive from the system are being realized. They can report that, as expected, they are making more efficient use of the resources—manpower, materials, machines—made available to them. Or they can report, to put it another way, that they are now able to realize more production with the same work force, or the same production with a reduced work force.

Like other large railroads, IC spends a substantial amount for maintaining fixed properties. As on other roads, about two-thirds of the total expenditure goes for labor. Hence, even a nominal increase in efficiency can bring sizable improvement in manpower utilization. That is the motivation behind the decision to put into effect the planning and scheduling (P&S) system.

Basically, the system involves finding out how many man-hours are required to produce a unit of work and then using that figure, called the "target," in determining the number of man-hours required to perform a given project. Thus, a form of work measurement is involved. Around the targets is built a system of control over field forces that is aimed at getting the maximum production of which they are capable.

● **Entire system now covered.** The concept had its beginning on the IC with the introduction of VeFac (Variable Factor) programming, a technique developed by the WoFac Co. for measuring and controlling work that consists of a number of variable elements. The WoFac Co. was engaged by the railroad to help install the system. First put into effect in M/W as a pilot project on two of the road's nine divisions, it has now been extended to the other seven divisions. The system has also been installed in IC's accounting, mechanical, operating, materials management and computer departments.

Direct responsibility for developing the system for IC was in the hands of Thomas D. Wofford, Jr., then director-operations research, who was recently appointed assistant chief engineer-cost control. Responsibility for implementing the system for the maintenance-of-way department is in the hands of James R. Miller, engineer-maintenance of way. Both Miller and Wofford work under the direction of Allen L. Sams, vice president and chief engineer.

Preparatory to installing the system, several important steps were necessary. One was the identification of all activities to be brought under the program. Next, it was necessary to establish targets for all these activities. For this step, convenient units of measurement—such as 100 track-feet for track surfacing—were adopted. Then field observations were made to determine the target for each job—the man-hours required to perform a unit of the particular element of work. In this effort, work groups (men and machines) were observed under widely varying situations to get representative samples of work under field conditions.

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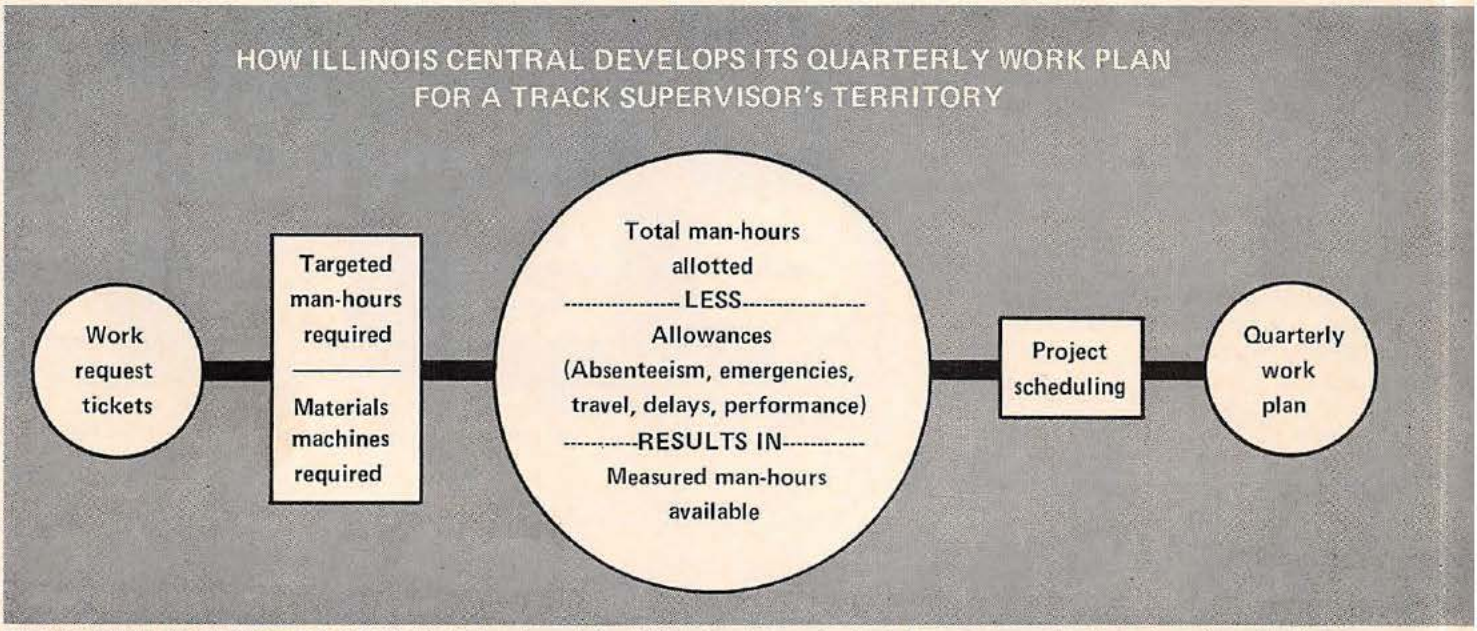

PREPARATION OF QUARTERLY WORK PLAN is where IC's M/W planning and scheduling system gets down to serious business.

New management techniques improve M/W productivity on IC

Top engineering officers of Illinois Central knew they were taking a big step when they decided to put into effect systemwide what they call their "planning and scheduling system."

They knew it would require considerable investment in time and money to carry out the necessary preliminary studies and to fashion the machinery required to implement the system. They knew it would mean for them, as well as for others, a revolutionary new approach to the planning and control of field work. It would mean, they also knew, more paperwork for them and for the people in the field.

● **Benefits being realized.** But they are glad now that the step was taken, for they can report that the benefits they expected to derive from the system are being realized. They can report that, as expected, they are making more efficient use of the resources—manpower, materials, machines—made available to them. Or they can report, to put it another way, that they are now able to realize more production with the same work force, or the same production with a reduced work force.

Like other large railroads, IC spends a substantial amount for maintaining fixed properties. As on other roads, about two-thirds of the total expenditure goes for labor. Hence, even a nominal increase in efficiency can bring sizable improvement in manpower utilization. That is the motivation behind the decision to put into effect the planning and scheduling (P&S) system.

Basically, the system involves finding out how many man-hours are required to produce a unit of work and then using that figure, called the "target," in determining the number of man-hours required to perform a given project. Thus, a form of work measurement is involved. Around the targets is built a system of control over field forces that is aimed at getting the maximum production of which they are capable.

● **Entire system now covered.** The concept had its beginning on the IC with the introduction of VeFac (Variable Factor) programming, a technique developed by the WoFac Co. for measuring and controlling work that consists of a number of variable elements. The WoFac Co. was engaged by the railroad to help install the system. First put into effect in M/W as a pilot project on two of the road's nine divisions, it has now been extended to the other seven divisions. The system has also been installed in IC's accounting, mechanical, operating, materials management and computer departments.

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force is expected to work at 90% of the targeted effectiveness.

These various factors are called "allowances" because, even though they are not productive man-hours, they must be considered when determining the total man-hours required to do a job. IC officers explain that they are established from experience and historical records. Except for the figure for performance, the allowances vary over different parts of the system and, in the case of absenteeism, with the season of the year.

Allowances for travel time run from about 12% to 15%. Allowances made for delays and emergencies have a wider range, varying from about 10% for a territory with mostly running tracks to as high as 25% for a yard territory. For absenteeism, the allowance may be as low as 5% to as high as 20% for some gangs during the winter.

Much of the responsibility for administering the P&S system locally is necessarily lodged with the division engineers. Each of these officers now has on his staff an employee with the title of planning and scheduling supervisor.

● **Paperwork tells story.** A description of the paperwork involved gives an idea of the way in which the P&S system works. This paperwork starts with a form called the "work request ticket," which is made out by the track supervisor for each project he desires to carry out. The type and amount of work involved, along with other information, are shown on the form by the supervisor. These tickets go to the P&S supervisor who fills in the man-hours required to carry out the project. In doing this he uses the established targets, or man-hours required per unit of work, to figure the total man-hours. The work request tickets not only identify the man-hours required for a job but also the materials and machines that will be needed. They are accumulated by the division engineer who assigns priorities for the various projects.

● **Quarterly work plan.** The next step, performed by the P&S supervisor on each division, is to use the work request tickets in preparing a "quarterly work plan" for each supervisor's territory. The preparation of these forms is where the system gets down to the serious business of planning and scheduling. This is where man-hours needed to perform the work are matched against the available man-hours.

On the quarterly work plan there is space for describing and giving the location of each project. The total man-hours required for each project and the man-hours it is planned to devote to each project in the particular quarter are shown. The planned expenditure of these man-hours on a weekly basis is also shown. This is the scheduling part of the system.

SPECIAL REPORTS MONITOR ILLINOIS CENTRAL's M/W PLANNING AND SCHEDULING SYSTEM
Daily work reports
Weekly management reports
Weekly project control reports
Project variance reports

THIS SERIES OR REPORTS shows whether system is working. One IC officer says: "The system makes better managers out of our division engineers and supervisors."

● **Figuring the man-hours.** But before the P&S supervisor can complete his scheduling he must know if he has enough man-hours to carry out the program work. To get the answer to this question, he must start with the number of men allocated to the particular supervisor for the quarter. From this figure he calculates the total number of man-hours he will have for the quarter. Then he must deduct from this total the man-hours represented by the various allowances—absenteeism, emergencies and delays, and travel. This gives him the man-hours available to perform the various projects. Understandably, it may be necessary to tailor the work to be done to fit the man-hours available.

Suppose there is a budget adjustment some time during the quarter, reducing the total man-hours available to a supervisor. In that case, one or more projects may have to be stricken from the work plan, giving consideration to priority, to match the required reduction in man-hours.

● **Monitoring the results.** To be sure the system is working as planned, means have been established to monitor the results. This "feedback" starts with daily work reports made to their supervisors by the gang foremen. The purpose of these reports is to show the progress made on scheduled work, indicating the man-hours, machines and materials used. There is also space for showing the resources committed to travel, emergency and non-scheduled work.

Information given in the daily work reports is used by the division P&S supervisor to prepare a weekly "project control report" for each supervisor's territory. "The purpose of this report," says Wofford, "is to see how well we are progressing with our work plan." The various projects under way on the supervisor's territory are listed and the man-hours assigned to each project for the week in the quarterly work plan are compared with the actual or "earned" man-hours. The earned man-hours are figured by multiplying the units of work performed by the target for the particular type of work.

● **When falling behind.** If a supervisor is unable to adhere to the schedule on a particular project (the earned man-hours are less than the planned man-hours) by 15% or more he makes out a "project variance report," on which the reasons are given for failure to meet the schedule commitment. This report, together with the cost of lost time, goes to the division engineer who passes it on to Miller's office. If the reasons for work-plan variance are beyond the control of the supervisor, this report will bring them out in order that corrective action can be taken. Such delays may include the inability to get work-train service when needed or the lack of cars containing needed ballast or ties.

Another means of monitoring the results of the system is a "management report." This report, made weekly by each division engineer to Miller's office, summarizes the performance during the week for each supervisor's territory on the division. This report, like the project control report, is prepared from the foremen's daily work reports.

The P&S system is described in brief on the IC as a system "for identifying the utilization of people and how well they perform against targets that have been set for each operation." Wofford explains that under the system the road in effect is saying to a supervisor: "Here is the number of men you have available and this is the work you are expected to get done with them."

● **Making better managers.** Experience on IC is that, with the P&S system in effect, there is a tendency on the part of supervisors and foremen to work hard to meet the targets and their schedules. "The system is making better managers out of our division engineers and supervisors," says Sams.

Control over travel-time provides an example of how the system works to

increase man-hour production. It is partly with this objective in mind that foremen have their work schedules laid out for them. thus reducing the possibility that they will spend excess time moving from one work location to another.

● **Reducing work delays.** Miller also explains that, through the P&S system, he and his staff are working hard to reduce work relays that may be caused by lack of equipment or materials at work sites. Wofford expands on this point by explaining that the P&S system "provides a vehicle for maximum equipment utilization and increased manpower utilization by having equipment and material when and where they are needed."

IC officers also explain that other departments, being aware that the M/W department has put the P&S plan into effect, have learned to tailor their own plans to those of the M/W people. This assures that work-train service will be available when needed and that such materials as ballast and ties will be delivered and available as called for by the quarterly work plan.

"Copies of the quarterly work plans are turned over to the materials management department so they can make their plans accordingly for deliveries of materials," explains Sams. Miller makes another point here: "By ordering materials based on the P&S system we are, in effect, exercising a form of inventory control," he says.

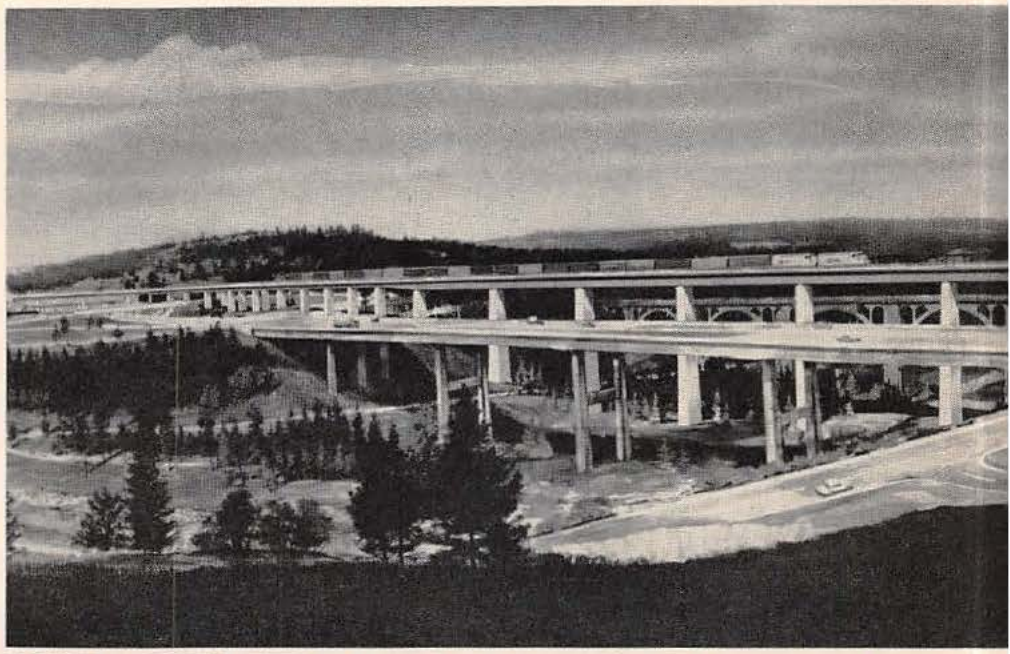
Even the traffic department gets into the picture. Personnel in that department, being aware of the P&S system, are now making their plans for new industry tracks further in advance so that they can be worked into the plan.

● **Not in final form.** IC officers do not consider that their P&S system is now in a final or fixed form. "We plan continually to revise the system as ways to improve it become apparent," says Sams.

For the first time the P&S system is being tied ("married," as Wofford puts it) to budget planning during the present quarter. "The system permits us, he says, "to plan our allocations of manpower and materials and other resources in such a way as to accomplish a maximum amount of the work the railroad considers necessary."

Not surprisingly, the P&S system has the full support of top management which sees in it a means of maintaining the properties to the highest possible standards with the resources available.

Looking ahead, Sams foresees the possibility that "ultimately we may, under the P&S system, be planning our work annually in advance instead of by quarters," but he realizes that planning on this basis can't be done as accurately as under the quarterly system. ■



SLENDER, GRACEFUL PIERS and clean lines of weathering steel superstructure of BN bridge over Latah Creek will not detract from the appearance of the scene.

Special bridge designs win approval for a BN line change

Pleasing appearance helps overcome local objections.

When a number of railroads are put together to form a big railroad—Burlington Northern, for example—the need for constructing connections between the several components is almost certain to arise. Sometimes the ensuing engineering projects can get pretty complicated, the degree of complexity depending on arrangement of existing lines, nature of the terrain, objectives to be accomplished—and civic pride.

In a project now getting under way on Burlington Northern at Spokane, Wash., these various considerations combined to produce an undertaking possessing noteworthy features. One is its cost—$13.5-million, all of which is being borne by the railroad. Another is the length and height of some of the bridges required. A third is the need for giving unusual consideration to aesthetics in designing the bridges. The result of this last consideration is the adoption of a type of construction that heretofore has not been used to any great extent on the railroads.

● **New line required.** A main objective of the Spokane project is to link the lines of the former Northern Pacific, Great Northern and Spokane, Portland & Seattle. To accomplish this, and to satisfy other requirements, BN engineers found that a new line was necessary, extending from a connection with the old main line of the NP east of Latah Creek to a connection west of the city to the old GN line to Seattle. This required construction of a long, high bridge over Latah Creek plus 5.4 miles of new trackage, including several additional bridges.

The new line will reduce the running distance between Spokane and Seattle by four miles. Although gradients are about the same on the new route as on the old line, a big reduction in curvature is being effected. The reduced distance is expected to result in better service to shippers and in less track maintenance. In addition, a tunnel will be eliminated.

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ious for the railroad to get started on this project because they see a number of benefits for the city. For one thing, when the project is completed, the tracks of the old GN through the city can be removed, thus eliminating nine street crossings at grade. Rail traffic will be diverted to the former NP tracks which, for the most part, are elevated through the city. Also, city officials have a long-range plan to convert Havermale Island in the Spokane River into a recreation area and to improve the riverfront there. The former GN tracks now extend across the island and it has a station there also.

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ENGINEERING PRODUCT SHOWCASE

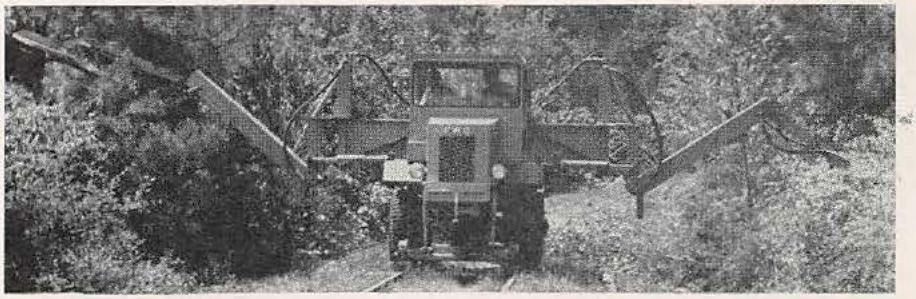
This is a non-exhibit year for the convention of the American Railway Engineering Association; the next exhibit of the Railway Engineering-Maintenance Suppliers Association is scheduled to be held during the March 1972 AREA meeting. To help fill the gap this year Railway Age and Railway Track and Structures have joined in producing this special section. In it readers will find a "showcase" of manufacturers' offerings including illustrated descriptions of new or improved products or established products that would be on exhibit if this were an exhibit year.

HY-RAIL EQUIPMENT

New manually operated Hy-Rail Series 0307 equipment is intended for inspection, patrol and maintenance vehicles. It features one basic group with variable spindle and wheel assemblies that will cover all suitable vehicles from 3000 lb gross vehicle weight to a maximum of 7800 lb GVW.

A choice of three guide-wheel assemblies is available, depending upon the vehicle GVW and the intended use of the vehicle. These are rubber-tread aluminum wheels, rubber-tread steel wheels and steel wheels. The Series 0307 is lighter in weight, has bolted-on guide-wheel arms and independent load-bearing guide-wheel action through rubber-cushion torque units. *Fairmont Railway Motors, Inc.*

Circle 50 on reader service card



BRUSH CUTTER

The Kal-Trac brush cutter features pressure-compensated rail-guide wheels for safe on-track travel, unique electro/hydraulic steering lock, positive four-wheel drive and speeds up to 40 mph—on or off track.

The twin 7-ft diameter cutting heads, mounted on hydraulic booms, can operate on any slope from the ends of the ties to a total span of 50 ft, it is said. Operators can contour the brush cutting as needed, reaching into deep gulleys or up high banks.

The hydraulic motorized cutting heads clear right-of-way growth up to 12-in diameter trees. Cutters can operate simultaneously or one side at a time, each making a 7-ft swath in either direction to clear a total swath 50 ft wide (25 ft from center line of track).

The Kal-Trac chassis, now available with a climatized cab, can also be equipped with accessories to perform as a ballast equalizer, brush cutter or dump truck. *Tamper, Inc.*

Circle 51 on reader service card

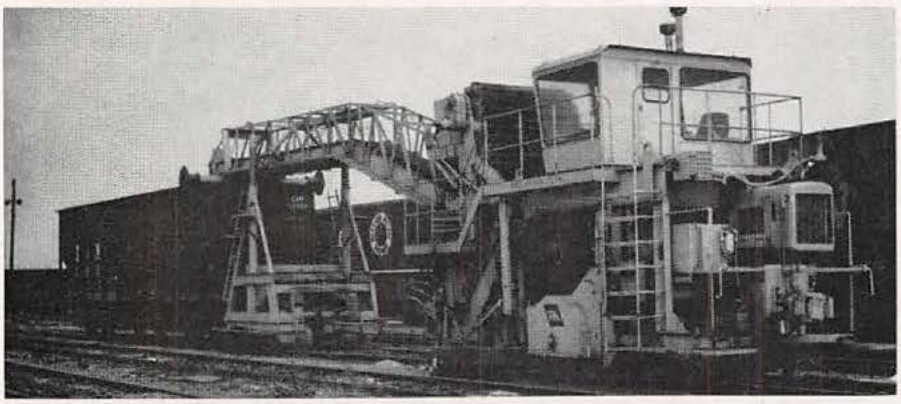
IN-TRACK RAIL WELDING

The intended use of the Thermit Self-Heat rail-welding method is for joining long lengths of butt-welded rail, welding compromise joints, upgrading existing track by cropping the rail ends and welding the joints, welding joints at the ends of special track-work to increase its life, and welding rails in classification yards.

An advantage cited for this rail-welding method is that there is no equipment to purchase or lease. The welding is done

with expendable materials. Molds, molding sand, Thermit welding compound and Starting Thermit are the only things that are needed, it is said. *Thermex Metallurgical, Inc.*

Circle 52 on reader service card



YARD CLEANER

The Model 4FB-G2 Yard Cleaner is a two-unit machine. The forward unit, of all-welded construction, carries the power unit, operator's cab, scarifier, track sweeper, shoulder plows, bucket elevators and debris conveyors. The power unit is a GMC 4-53 engine. The propelling drive consists of a variable displacement piston pump for speed control. The scarifier teeth scarify the entire length of the crossties plus 2.5 ft beyond the ends. The track sweeper is of all-welded construction. The debris conveyor discharges material at a maximum elevation of 12 ft 6 in above top of rail. Its speed ranges from a low of 2.86 mph to a high of 19 mph.

The second unit is connected to the first by a tow bar which is hydraulically adjustable for distributing the material picked up evenly along a hopper car. *Kershaw Manufacturing Co.*

Circle 53 on reader service card

LONGER CUTTING BOOM

The RMC line of brush cutters has been modified to include longer, more rigid cutting booms. So equipped, the modified machine cuts a 12% wider swath, extending up to 28 ft from each side of the center line of track, compared with 25 ft for previous models.

The new design features solid, nontelescoping booms which are cable suspended. The units are stronger, lighter and more rigid than earlier cutting booms. Construction still includes a 7-ft diameter cutting head on each boom, swivel-mounted to accommodate uneven slopes.

The RMC Brush Cutter shreds heavy brush simultaneously on both sides of the track, and even cuts trees up to 12 in. in diameter, it is claimed. *Railway Maintenance Corp.*

Circle 54 on reader service card

TIE-PLATE BROOM

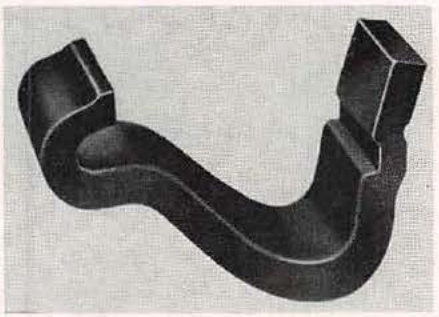
Intended for use by rail gangs as well as tie gangs is a new machine designated the RMC Tie Plate Broom.

This is a self-propelled unit which makes use of a series of revolving rubber hoses to remove stones from tie plates in order to facilitate the operation of mechanical spike pullers. When used in either gang, the Tie Plate Broom does not require an operator.

The basic RMC Tie Plate Broom is powered by an air-cooled gasoline engine, and it operates at a speed of approximately ½ mph. The revolving hoses are powered hydraulically, and the design includes deflector shields which deposit ballast thrown by the hoses clear of the tie plates.

This machine also is available in an alternate version, equipped with a propelling arrangement providing a work speed of ½ mph and travel speed up to 20 mph. This model, which has an operator's position for traveling, can be used for towing carts and wheel-mounted machinery. In this version, a water-cooled gasoline or diesel engine is furnished. *Railway Maintenance Corp.*

Circle 55 on reader service card

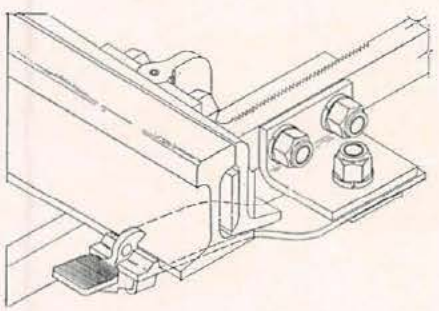


RESTRAINS RAIL CREEPAGE

The Unit Rail Anchor is a one-piece anchor that can be applied by machine or hand tool. It is produced from high-carbon, high-manganese steel that is heat treated to insure uniform grain structure throughout the section and is tempered in an electric automatically controlled furnace.

The manufacturer states that the Unit anchor is re-usable without reforming, is not apt to damage the rail or be itself damaged from derailed wheels, is not subject to over-driving, does not throat-cut spikes or climb up on the top of the tie. In addition, it is said to be equally effective on worn rail as well as on new welded rail under all traffic, ballast and temperature conditions. *The Unit Rail Anchor Co.*

Circle 56 on reader service card



SWITCH POINT LOCK

The Automatic Switch Point Lock has been developed for the vertical switch rods that are now so common.

Type MJA Automatic Switch Point Lock is furnished with slotted hexagonal nuts and cotter keys, and Type MJB is furnished with Elastic Stop Nuts. Both types are furnished with 1-in by 4½-in bolts. *The Rails Co.*

Circle 57 on reader service card

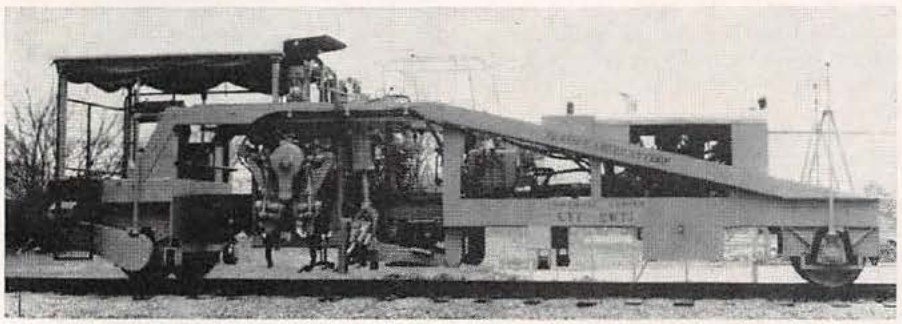
NO OPEN FLAME

The Raco Model RA-30 snow melter is an oil-fired forced hot-air unit with the flame safely contained within a combustion chamber. It discharges hot air at the nozzle ends at approximately 45 mph and at a temperature of 400 deg. Controls can be furnished for manual, solid-state remote, or solid-state automatic operation.

In operation Model RA-30 is said to produce a "contained atmosphere" of hot air (the entire distance between the point and stock rail) to vaporize the snow before it makes contact. The unit is designed for switches having 19-ft 6-in switch points or shorter.

For switches longer than that, the Raco Model RAD-30 snow melter is recommended by the manufacturer. This unit uses the Model RA-30 combustion chamber and a fully enclosed ducting and nozzle outlet system that directs the hot air, where required, under the switch points and in the rod cribs. *Railroad Accessories Corp.*

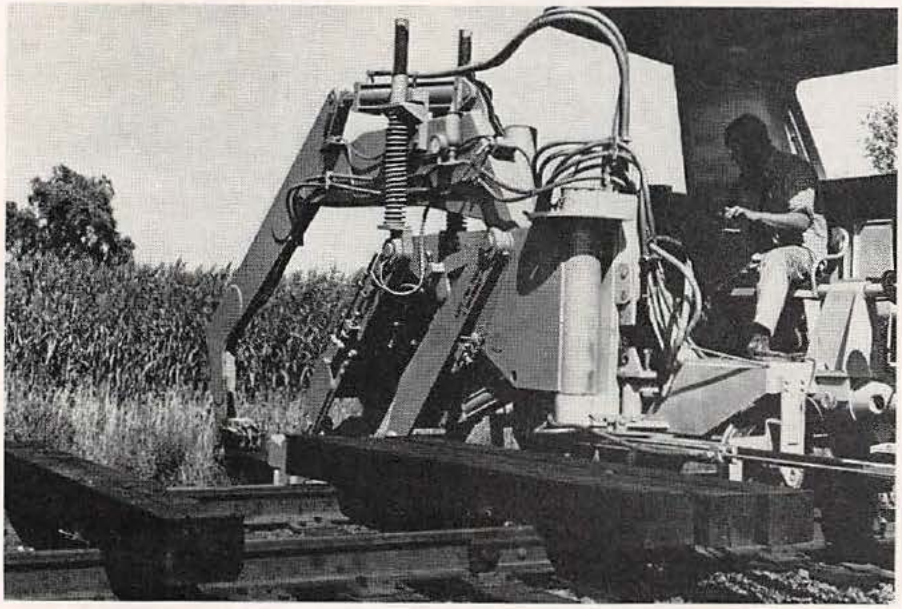
Circle 58 on reader service card



YARD AND SPOT TAMPER

The Plasser UYT-2W75 yard, switch and spot tamper is a new addition to the company's line of Universal tampers. Although the size has been reduced all components are said to be identical with those of other Universal tampers. The machine is equipped with two Plasser four-tool tamping heads with individually tiltable tamping tools. The company says the unit is particularly adapted to yard and spot work and is capable of lifting, leveling and tamping all the ties throughout switches and turnouts. *Plasser American Corp.*

Circle 59 on reader service card



FOR TIE INSERTION

A machine designated the Mannix Ram and used for inserting new crossties has been improved. For its operation, the ties are distributed along the tops of the rails over the ties to be renewed. The machine grasps the new tie, lowers it to base-of-rail level and pushes it into the tie bed.

The manufacturer states that, when the machine is equipped with optional jacking and clamping attachments that will soon be available, the Ram is designed to push the old ties out as the new one is inserted.

Hand levers, a foot pedal and automatic transmission are used to control the travel, tie positioning and tie insertion. *Mannix Maintenance of Way Division.*

Circle 60 on reader service card

BRIDGE-TIE FASTENING

The efficiency of the Lewis Sealtite Hook Belts for fastening bridge ties to steel beams has been materially increased, it is said, by the addition of the Sealtite Spring Lock (Hy-Crome Double Coil Thackery Spring).

The Sealtite Spring Lock is said to effectively compensate for wood shrinkage and wear as well as locking the nut on the bolt. The extra strength of the spring, and freedom of its movement along the bolt shank due to the Thackery feature, is said to assure constant designed tension of the hook against the steel beam. A reinforced heel on the hook bolt prevents any bending at the point where the hook joins the bolt shank. The effectiveness of the hook-bolt fins in preventing the bolt from turning off of the beam is further increased by the spring action, it is pointed out. *Lewis Bolt & Nut Co.*

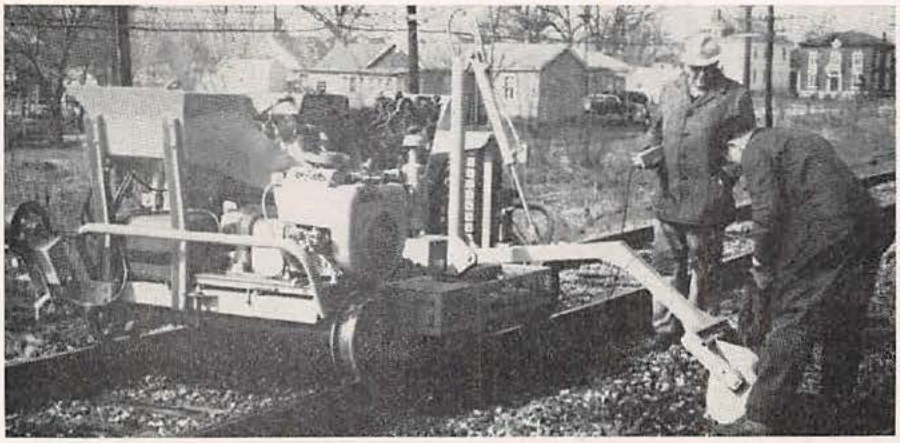
Circle 61 on reader service card

RAIL ANCHOR MACHINE

A self-propelled unit, designated the Rail Anchor Machine, is said to be capable of box anchoring at the rate of six ties per minute, applying 12 rail anchors. Operation is fully automatic, it is claimed, the anchors being transferred from the loading carriage to the applicator while the machine is traveling between ties. Once the machine is positioned over the tie, the anchors are lowered to the rail base, boxed against the sides of the tie and applied. Control of all operations is via solid-state electronics.

Weighing less than 3000 lb, the machine is powered by a 27-hp engine having a 20-gal fuel capacity. Top speed of the vehicle is 15 mph. The machine contains a large anchor-storage hopper which is hydraulically lowered for loading anchors from alongside the track and raised to feed anchors to the operator. *Jackson Vibrators, Inc.*

Circle 62 on reader service card



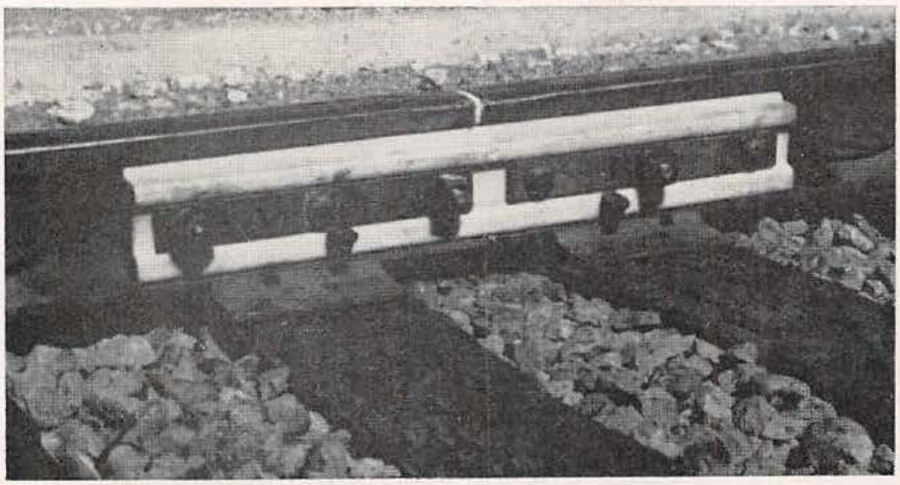
ANCHOR-MATIC MACHINE

The new Racine "Anchor-Matic" Rail Anchor-Setting and Applying Machine has been extensively field tested and, according to the manufacturer, is now ready for production manufacturing. It is a one-man operated machine.

Loading of anchors into the larger hoppers is accomplished with a hydraulic push-button controlled loading crane and bucket. The operator removes anchors from the hoppers as required, drops them on pins provided for automatic pick-up by the setting arms and presses a start button. The machine then goes through a cycle of setting the anchors on the rail base to box or single-anchor a tie, holding them tightly to the tie while anchors are applied. Overdriving is eliminated by an adjustable stop screw which controls applying cylinder travel.

Under normal conditions, with a rail-laying gang, anchoring every other tie, production is said to be up to seven ties or 14 boxed anchors per minute. Changing tooling for different anchors, it is claimed, takes only a few minutes. *Racine Railroad Products, Inc.*

Circle 63 on reader service card



INSULATED RAIL JOINT

The Portec Poly-Insulated Rail Joint is a specially designed steel bar bonded and encapsulated in Poly-Urethane. Blue Ribbon bushings and end posts are standard with this joint. It can be installed with the rail ends unsupported or supported with a tie. If supported, the Portec Poly-Insulated abrasion plate is available and should be used. It is adapted to fit either the 5½-in or 6-in rail base.

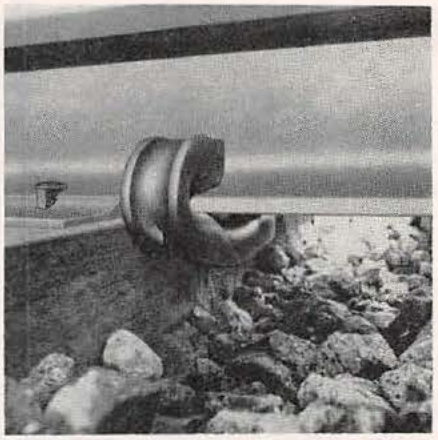
According to the manufacturer, the Poly Joint has been in service for over six years and has passed all privately conducted tests plus the AAR Rolling Load Test at the assigned loads for these tests. Field tests have been rigorous and lengthy and equally successful, it is claimed. *Portec, Inc., Railway Products Division.*

Circle 64 on reader service card

IMPROVED SPEED SWING

The Pettibone 441B Speed Swing has a number of improvements over earlier models. The capacity over the front wheels has been increased to 8,000 lb., and that at an angle of 90 deg with the track is 5,500 lb. The unit now has a heavy-duty reinforced boom turntable. Ballast plates are used for increased stability. Also the machine is now equipped with orbitrol steering with independent rear steering. Automatic engine shutdown in case of engine trouble is standard. A console containing control levers, gauges and switches has been placed in the cab in front of the operator's position. Air-over-hydraulic brakes are provided and the rear axle may now be disconnected for highway travel. *Pettibone Corp.*

Circle 65 on reader service card



ONE-PIECE RAIL ANCHOR

High gripping strength is claimed for a one-piece rail anchor because of its U-shape cross section which is said to provide double-flange support from end to end.

Other features claimed for this anchor, named "Channeloc," are: Provision of 100% tie bearing; smooth contours for stress distribution to conserve gripping power; wide striking surface for fast and sure application by man or machine; uniform heat-treatment because of uniform thickness of bar stock; and large and flat rail-contact surfaces. *True Temper Corp.*

Circle 66 on reader service card

TIE GANG PACER

The W114 Tie Shear sets the pace for high production tie gangs, it is claimed. Two large shears, working simultaneously, cut the tie into three pieces with one bite, then pick up the center section. The machine moves a short distance, then hydraulically controlled arms force out the two tie-end pieces, and the center section is placed between the rails and near the point of removal.

The shear blades are replaceable. The Tie Shear is powered by a diesel engine, hydraulically propelled, and has air-actuated hydraulic controls. *Fairmont Railway Motors, Inc.*

Circle 67 on reader service card

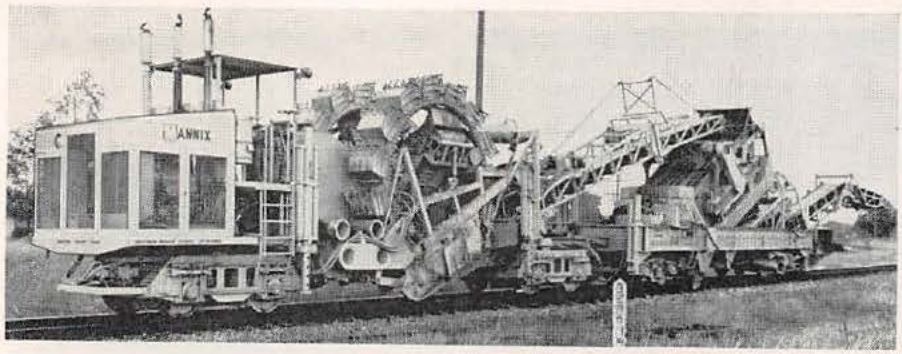
TIE DESTROYER

A machine, designated the Montgomery Tie Destroyer, is designed to pick up cross-ties or tie pieces, shred them and dispose of the chips on either side of the right of way or into a trailing hopper car. It incorporates a specially designed Montgomery Blo-Hog shredder, a Montgomery Blow-Rite material-handling fan and a GM-Detroit diesel engine for both main propulsion and powering all moving components. These are mounted on a flatbed with a 180-deg swivel-mounted, telescoping tie-pickup boom and a special grate with powered-feed mechanism for conveying used ties into the cutting area of the unit where they are cut to small bits.

The manufacturer points out that the massive teeth and anvils of the Blo-Hog are designed to grind spikes and S-irons that might be embedded in the ties. A built-in shear pin protects the machine in the event that tie plates or heavy steel items inadvertently remain attached to the ties.

Its design grinding-capacity is said to be 4 whole ties or up to 12 cut pieces per minute. One operator in an elevated cab is required. Travel speed is up to 25 mph and working speed ranges between 0 and 10 mph. *Jacksonville Blow Pipe Co.*

Circle 68 on reader service card



SHOULDER CLEANER

The Mannix Shoulder Ballast Cleaner is a self-contained machine that, in one pass, picks up, cleans, replaces and regulates ballast on both shoulders. The cleaned material can be returned to either or both shoulders, the center of the track, or any combination. It is then plowed and regulated to the desired slope.

The machine is comprised of two units which are coupled together in use. The first unit contains two diesel engines, controls, ditching wheels and conveyors that carry the shoulder material to the screen car. The latter cleans the material, distributes the cleaned ballast, plows and regulates it and disposes of the waste material by conveyor to either side of the track or into a car towed behind.

One of the engines powers the hydraulic system for controls and propulsion. The other powers the electrical system. The machine runs to and from the work location at speeds up to 25 mph. Working speed is 1 mph. To travel longer distances between job locations, the machine will load and unload itself on two 60-ft flatcars. It can be set up to work or closed up for travel in less than a minute, it is claimed. *Mannix Maintenance of Way Division.*

Circle 69 on reader service card

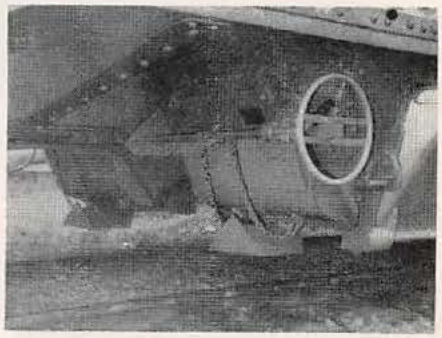
RAIL-JOINT GRINDER

A lightweight rail grinder, designated Model JG-970, has been developed for the removal of overflow metal at rail joints. It is said to eliminate the old single-head grinding wheel and replaces it with two, one for each rail, so the machine does not have to be turned.

The grinding wheels are on each end of a metal boom, balanced at the center, and moving like a teeter-totter, up and down, keeping one wheel up and clear while the other is working.

Power is supplied by a single 6-hp gasoline engine, mounted on the center of the beam, and driving the grinding wheels by adjustable V-belts. Two slip-proof, foot-clamping devices, one for each side, support the working mechanism, anchoring and squaring the equipment firmly against the rail during slotting operations, it is said. Its weight is 230 lb. *Railway Track-Work Co.*

Circle 70 on reader service card



FOR DISTRIBUTING BALLAST

Ballast can be unloaded faster and in the quantities desired, it is said, by applying the Damy ballast doors to any existing hopper car. The manufacturer states that the Damy doors save labor, ballast material and time, as well as permit distributing ballast exactly where needed, increasing or decreasing the flow or stopping it entirely at bridges and highway crossings, and restarting the flow while the car is in motion.

Damy doors are applied four to a car pocket and each door may be operated independently so that ballast may be distributed on the inside of one rail and on the outside of the other, more on one side of the track than the other, or any of 16 selections which can be changed while the train is in motion. It is said that one man can control the complete distribution of ballast from a 70-ton hopper in three to five minutes.

Any hopper car equipped with the Damy doors can still be used in commercial service. *Morrison Railway Supply Co.*

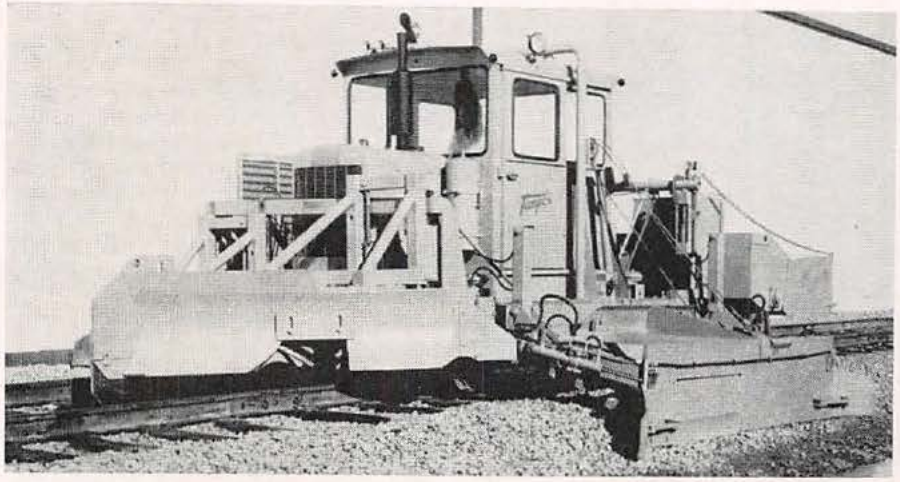
Circle 71 on reader service card

ANCHOR CRIBBER

A new heavy-duty, wheel-type cribbing machine, designated Model DWD-2, is available for quickly removing cemented or frozen ballast to permit the application of rail anchors in the laying of continuous welded rail.

Long-lasting carbide teeth enable the unit to dig out concrete-hard material, it is said. The new cribber is self-propelled and one-man operated. Digging depth is readily adjusted. The machine is ruggedly constructed, the manufacturer states, and it has adequate tractive power for towing other equipment. A cable-type sweeping attachment is available as an option. *Railway Track-Work Co.*

Circle 72 on reader service card



BALLAST EQUALIZER

The Tamper Ballast Equalizer is said to be a rugged, heavy-duty on-track railway machine used for track maintenance and rehabilitation. The Ballast Equalizer's primary function is to properly arrange track ballast prior to and immediately after tamping. Before tamping, the shoulder ballast can be loosened, uniformly distributed and placed at proper depth over the ties for the tamping operation. After tamping, excess material is placed on the shoulders and re-distributed, if necessary. The final operation consists of sweeping the tops of the ties and establishing a toe line at the outer edge of the shoulder.

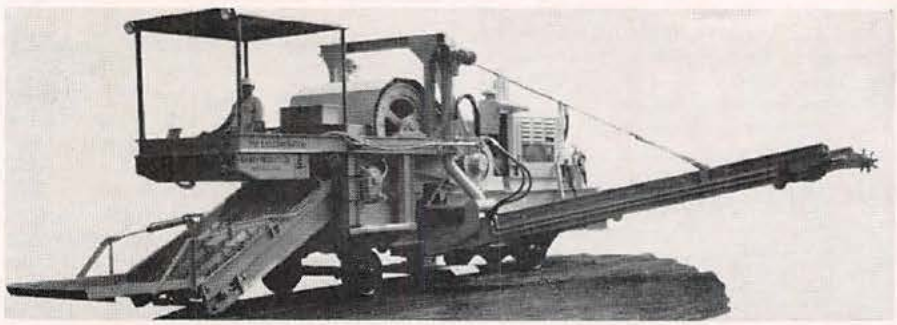
Secondary functions not in conjunction with the tamper include routine shoulder dressing, de-weeding and scarifying, plowing out tie ends for tie renewal and distribution of new material. Special attachments include a rotary, auger snow-blower, special snow-plow blades for snow-removal work and rotary brushcutters for removing weeds and brush along the right of way, thus affording this machine maximum versatility and year-round use, the manufacturer points out. *Tamper, Inc.*

Circle 73 on reader service card

PORTABLE UNLOADERS

The Raco portable unloaders for loading or unloading track-maintenance machinery between track and rail cars have been redesigned. Two models are now available for either light or heavy "axle load" capacities. A Model M1400-3B permits axle loads up to 22,000 lb. A Model M1400-10 permits axle loads to 34,000 lb, when the rail sections are reinforced. Both unloaders are easily assembled or dismantled by two men, it is claimed, as they are fabricated in 8-ft rectangular steel sections. *Railroad Accessories Corp.*

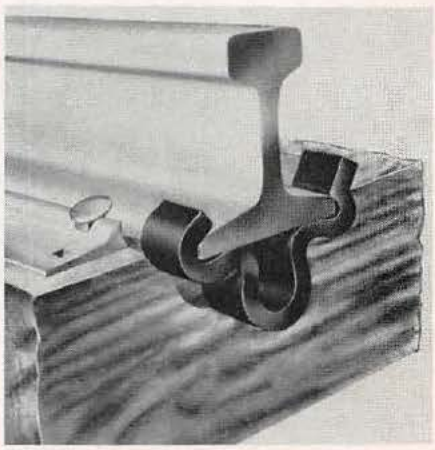
Circle 74 on reader service card



TIE EXTERMINATOR

With a work season behind it, the Tie Exterminator is proving to be an economical and efficient tie-disposal machine, the manufacturer states. Its rugged design, inexpensive "throwaway" cutter bits and high-capacity performance, all contribute to the acceptance of this technique for tie-chunk disposal, it is claimed. *Railway Products Co.*

Circle 75 on reader service card

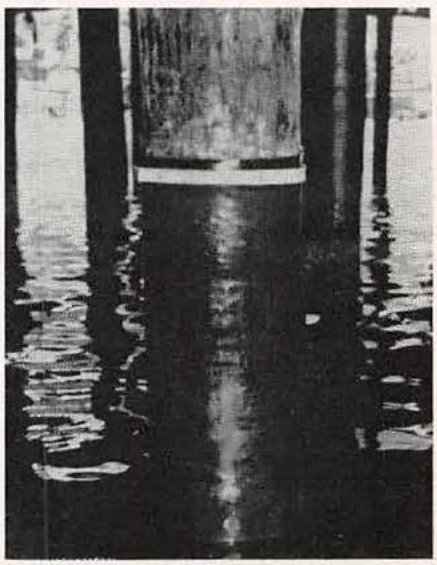


FOUR-POINT GRIP ANCHOR

A one-piece anchor, designated Woodings Advanced-type Rail Anchor, exerts spring pressure on the rail at four points—at the upper corner of the rail base on each side and at two intermediate points on the underside of the rail base. Also, it is pointed out that its lower half-loop shape provides deep tie-bearing area.

The manufacturer states that vertical pressure tests show that this anchor will withstand 50,000-lb pressure without causing it to spread. *Woodings-Verona Tool Works.*

Circle 76 on reader service card



WOOD-PILE PROTECTION

PILE-GARD is a process for protecting wood piles in-place against marine borers. The process involves the use of sheets of specially formulated plastic securely wrapped around the pile in modular sections. The formed stagnant envelope is said to be lethal to all entrapped marine life by eliminating the necessary oxygen. The jackets are installed by attaching half-rounded wood pole pieces to sheets of 30-mil polyvinyl chloride. The piles are encapsulated by wrapping the plastic around

the piles, mating the wood pole pieces and rotating them by means of a ratchet wrench to produce a snug fit. Water seals are included under the wrappers in intertidal areas. The jackets are secured by noncorrosive nails driven through both the seals and the pole pieces. The jackets are said to be capable of withstanding the impact of heavy floating debris without damage, even in heavy weather. *Osmose Marine Division.*

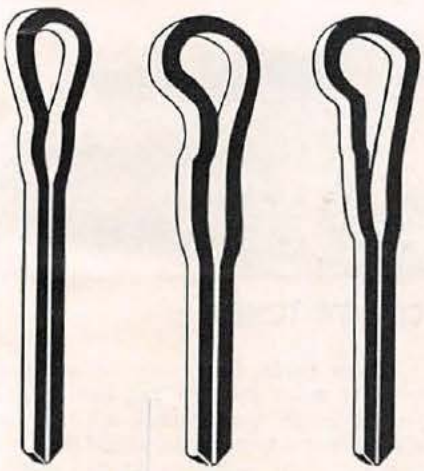
Circle 77 on reader service card

HYDRAULIC TRUCK CRANE

The Pitman truck-mounted hydraulic cranes are available in two models—Hydra-Lift 95 of 4 and 5-ton capacities and Hydra-Lift 135 of 6½ to 7-ton capacities. These cranes have been mounted on trucks with rail-wheel attachments to make them an on/off-track unit.

The Hydra-Lift cranes feature fail-safe hydraulic telescoping outriggers, three-stage telescoping booms, a Uni/Dyne turret assembly having a 375-deg rotation with mechanical stop, control consoles on each side and a fully rated hydraulic system which receives its power through a power take-off. A sheave height of 47 ft. 3 in. can be obtained. *Pitman Manufacturing Co. Division, A. B. Chance Co.*

Circle 78 on reader service card



LEFT TO RIGHT, these drawings show the Tie-Plate Lock Spike, the Gage Lock Spike and the Rail Lock Spike.

SPECIAL TRACK SPIKES

The addition of three types of railroad fasteners to the line of industrial fasteners made by Bethlehem Steel Corporation was announced by James L. Humphrey, manager of industrial fastener sales. The three additions were identified as Tie-Plate Lock Spikes, Gage Lock Spikes, and Rail Lock Spikes. Compared to standard spikes, these lock spikes, he explained, all offer greater ability to grip and hold the tie plate for rail and trackwork.

Each of the Lock Spikes, it is said, becomes integral with the tie plate in the following manner: The slight bulge in the spread shank of the spike develops a locking action in the tie plate. As a result, the legs exert a lateral pressure against the sides of the tie hole. This combination, it is claimed, binds the spike in the tie and gives tight adhesion between the tie and the plate.

Tie-Plate Lock Spikes employ spring compression to hold tie plates firmly in place on crossties and bridge timbers, it is claimed. The spikes are placed in diagonally opposite hold-down holes of the tie plate and are driven in prebored holes in the tie. A 9/16-inch-diameter hole is drilled to a depth of seven inches below the top of the tie plate. Tie-Plate Lock Spikes are available in 6-inch and 7-inch lengths.

Play between the spike and the hole is said to be eliminated and the plate is prevented from horizontal or vertical movement under spring pressure. This spring action is claimed to keep spikes tight in the tie and practically to eliminate tie wear under plates.

The Gage Lock Spike is a rail spike and a plate fastener, it is explained. It is designed for use on tangent track and light curves where lateral thrust can be overcome with two spikes at each plate. They are driven in the line holes of the tie plate, adjacent to the base of the rail.

The Gage Lock Spike is similar in design to the Tie-Plate Lock Spike, except for the conformation of the head overlaying the rail base. This head is offset approximately ⅛ inch at the tie-plate surface to avoid lateral thrust and wear from the edge of the rail base which rests against the tie-plate shoulder and not against the spike. There is a slight clearance between the top of the rail flange and the spike head to allow for vertical motion of the rail. Two Gage Spikes per plate have been found to hold the tie plate to the tie and maintain the gage more effectively than the use of four cut spikes per plate.

Rail Lock Spikes are designed to take up the play between the width of the rail base and the tie-plate shoulder. The slight protrusion of the spike at the tie-plate surface binds against the edge of the rail base and forces the opposite shoulder into contact with the rail base. This action is said to bind the rail at all four corners of the tie-plate shoulders. Thus, it is claimed, the rail is held to line and gage, and longitudinal movement of the rail is restricted. *Bethlehem Steel Corporation.*

Circle 79 on reader service card

HERBICIDE FORMULATION

Newest of the "Hyvar" bromacil weed killers is "Hyvar" X-L, which is produced in easy-to-use liquid form. It is said to be convenient to store, handle and dilute and it is merely added to water to be ready to use. No agitation is needed. The manufacturer states that the high performance of "Hyvar" X-L offers an excellent long-term control of hard-to-kill annual and perennial weeds and grasses. *E. I. DuPont de Nemours & Co.*

Circle 80 on reader service card

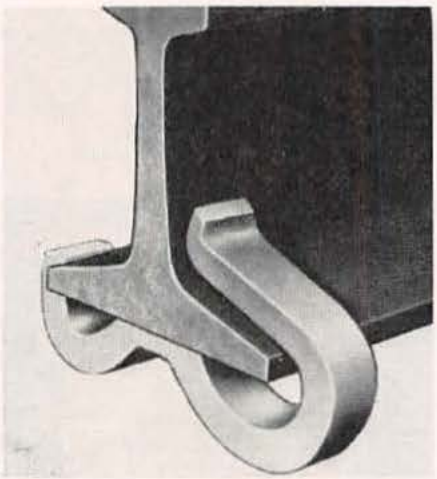
RAIL GANG COMPRESSOR

Schramm's S160 Railroad Pneumatractor is a self-propelled air compressor that moves along with the work under its own power and can be furnished with hydraulically operated railcar wheels for on-track operation. Also available is a creeper me-

chanism that permits the worker to move the unit forward or backward on the rails by remote control.

Mechanical improvements include new rear axle and transmission to provide a higher degree of mobility and wider range of power—four forward speeds (up to 18 mph) plus reverse. A dry air cleaner with automatic dump is also provided. Standard equipment includes head lamps, tail light, signal horn, license plate bracket, hour meter and water temperature gauge. *Schramm, Inc.*

Circle 81 on reader service card

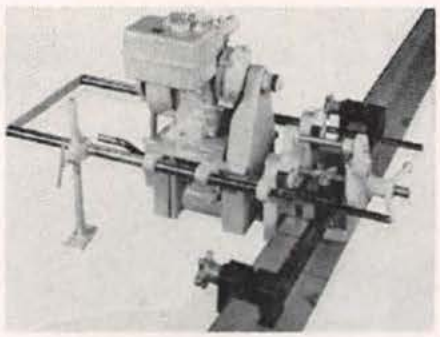


ANCHOR IS REUSABLE

The Improved Gautier rail anchor is a one-piece anchor which can be readily applied by maul or machine. It is equally usable on either new or secondhand rail due to its substantial spring design. This design, due to its contour, has a natural no-overdrive feature which, it is said, assures many applications with the retention of effective holding power.

This anchor is produced in both the standard and lightweight designs. *Mid-West Forging & Mfg. Co.*

Circle 82 on reader service card



PORTABLE RAIL DRILL

The improved Model "AP" portable rail drill is designed with attachments and fixtures to precision-drill rail in-track without using templates or center punching.

A kit of parts is available to convert any Racine Model "A" & "M" portable rail drill, beginning with Serial No. RD-300 or RDM-300, into Model "AP" drill in the field.

A vee-type clamping arrangement holds the drill tightly to the head of the rail to obtain perfect alignment and insure drilling accuracy. *Racine Railroad Products, Inc.*

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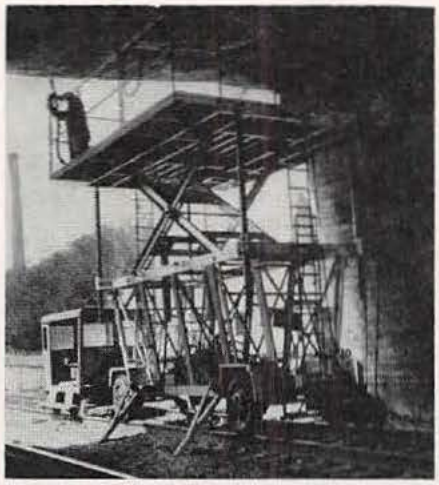

PORTABLE SCAFFOLD

A portable scaffold, having variable-level hydraulic lift, has on/off-track capabilities. The work deck folds out to 12 ft by 16 ft in size. The unit will lift and support 2000 lb. Designed for overhead maintenance, the lift includes self-leveling hydraulic outriggers to compensate for uneven roadbeds, and complete highway brake and light systems. *Ballymore Co.*

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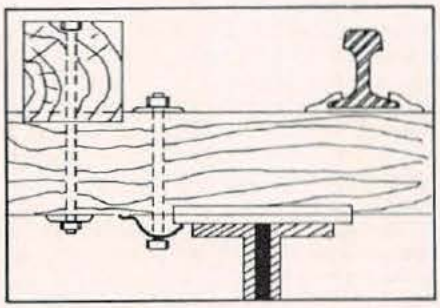

BRIDGE TIE ANCHOR

The HCP-25 Bridge Tie Anchor is used when installing open-deck bridge ties on regular-weight steel bridge members. Of spring-steel construction, the anchor exerts a strong pressure, holding the tie and supporting member firmly together. A slotted hole accommodates variation in steel thicknesses.

Variation of pressure caused by the flexing of the tie under wheel loads is absorbed by the spring action of the anchor. *The Rails Co.*

Circle 85 on reader service card

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RAIL-GRINDING SERVICE

A method of surface grinding rails out of face is available, which uses motor-driven grinding wheels so mounted that the running surfaces of the rails may be ground to the desired contour. The method is designed to remove or reduce surface imperfections such as corrugations, wheel burns and end batter. The grinding wheels are mounted under a series of specially designed cars. *Frank Speno Railroad Ballast Cleaning Co.*

Circle 86 on reader service card

CLEANING OUT CUTS

For the economical movement of dirt and snow out of cuts and for cut ditching, the Jordan Spreader-Ditcher has been used by the railroads for years. The new models have been improved with hydraulic rams and controls. This is said to make their operation easier, simpler and to provide instant action for avoiding obstacles when encountered along the roadway. *O. F. Jordan Co.*

Circle 87 on reader service card

CAR SWITCHER

A new model heavy-duty railroad car switcher, called the Kal-Trac, features improved design on-rail wheels with adjustable pressure-compensated weight distribution to afford maximum tractive effort. Unique electro-hydraulic steering lock and positive traction four-wheel drive further increase the pulling capacity and safe on-rail operation.

Rated at 15,000 lb of draw for pull, the Kal-Trac easily handles in excess of 1,000 gross tons on level track, it is said, and is now available with climatized cab, auxiliary air for railroad car brakes and electric rail sanders. On the highway or track, the Kal-Trac switcher can travel up to 40 mph.

The switchers are furnished with air-operated couplers, front and rear, and are remote controlled from the cab for coupling and uncoupling cars. The chassis can also be equipped with accessories to perform as a ballast equalizer, brush cutter or dump truck, it is said. *Tamper, Inc.*

Circle 88 on reader service card

Computer helps Penn Central solve safety problems

The program is less costly, more efficient and faster than previous methods.

It takes a lot of doing to make safety "exciting."

But, with the help of the computer, Penn Central's safety department is bringing a bit more excitement—and, hopefully, a lot more effectiveness—to the road's safety programs.

Results are hard to measure, in specific terms. Still, PC's employee-injury total was down by more than 13% last year. And there was an improvement of close to 10% in the key figure—number of injuries per million man-hours worked.

Nobody would give the computer full credit for this showing. At the same time, there is not much doubt that PC's new safety-information program is a contributing factor—since it provides highly detailed accident/injury data on a timely basis and makes it possible for supervision to take fast action on specific problem areas.

● **Complicated? Not really.** At first glance, the program seems incredibly complex. But, Manager-Safety J. A. Bonelli quickly points out, reporting methods—making use of more than 200 DOT train-accident-cause codes and about 600 injury-cause codes—look a lot more complicated than they are.

Basically, PC's accident-reporting system takes the traditional causes—equipment failure, fixed-plant failure, employee negligence—and makes them far more specific. As Bonelli explains it, "Now, we can mechanically assist officers in determining where corrective action is to be taken—because the causes are pinpointed and the specific types of cause are described. This holds true for M/W, and for equipment. On equipment, for example, specific causes by types of cars—and, of course, by location—can be analyzed and even ultimately related to the improvement of design. Also, employee negligence as an accident cause can be studied for correction. And if one geographic location shows up with a higher number of reports of a given kind of negligence, studies can quickly be made to develop the reason."

Injury-reporting is equally detailed—and here, too, the emphasis is on making data available quickly so that corrective action can be taken. Shortly after the end of each month, the figures on injuries and man-hours-worked are cranked into the computer, ratios and comparisons are developed and published. With the data base that has been established, virtually any kind of specific on-demand study can be made—by location, for example, or by cause or by type of injury.

● **Pinpoint printout.** On both train-accident and personal-injury reporting, Bonelli and his staff have the system refined to the point where, for any cause-code, a printout can be made which gives time, date, location (town, yard or milepost), state, type of track (main, secondary, yard), direction, speed, casualties, visibility, signal system, type of car (if equipment failure was involved) and whether discipline was imposed.

For both reporting programs, the basic source-document is prepared in the field. It goes from there to the office of the manager-safety, where the accident or injury cause-code is applied and a computer card is punched. From that point on, the computer can be tapped to provide the desired analysis.

With more than 200 train-accident cause codes and 600-or-so personal-injury codes, Bonelli says, "you might think that applying the proper codes is a tremendous job. Actually, it's very simple. Most train accidents and most injuries fall into just a few categories—and people working with these codes daily very quickly become familiar with them."

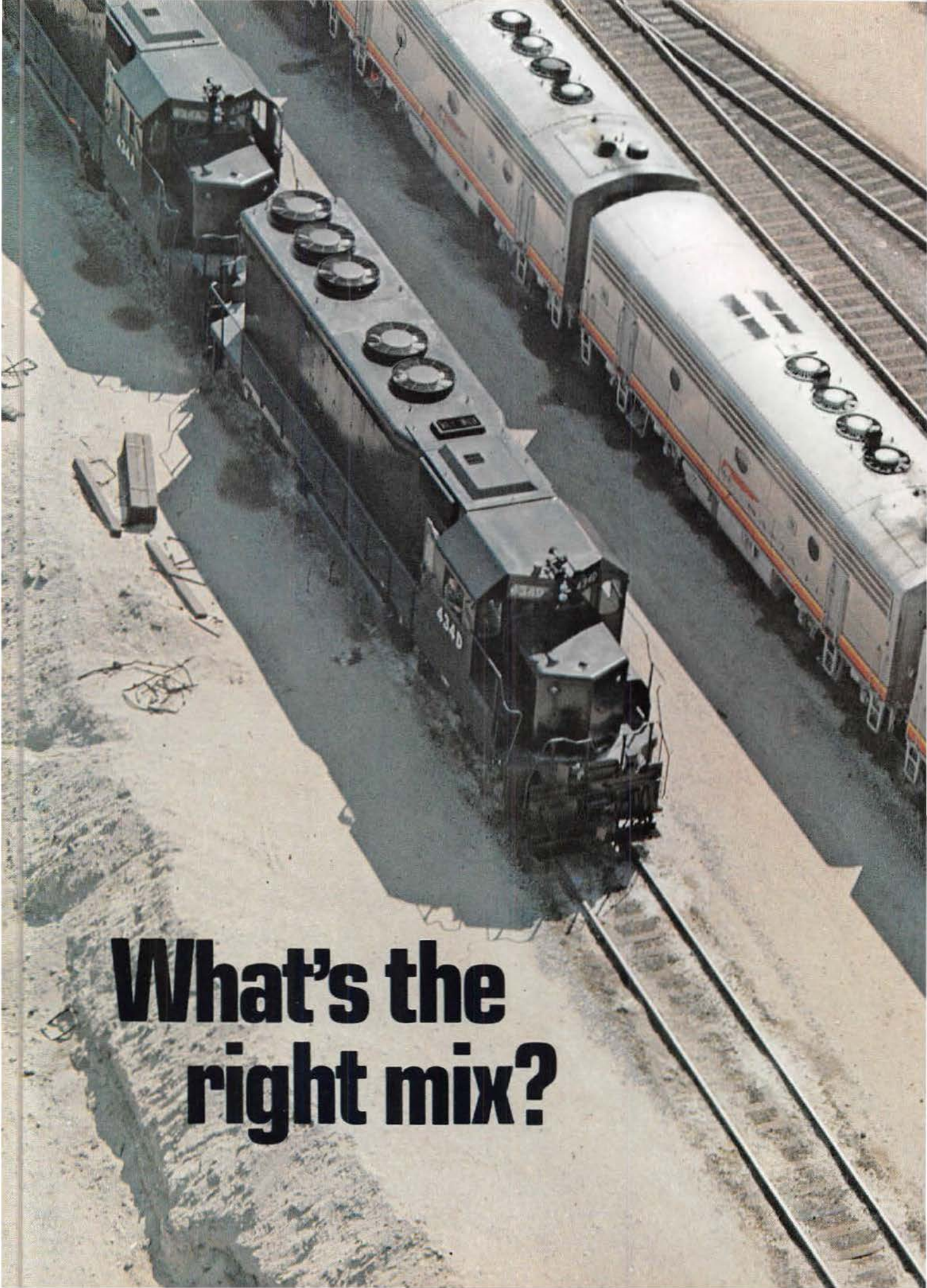
As Bonelli also points out, one of the obligations of the safety department "is the 'establishment of a system of statistics for analytical and information purposes.' This computer program is less costly, more efficient and many times faster than our previous methods."

● **Interest, inside and outside.** The proof of the pudding, of course, is in the eating—or, in a case like this, in who comes back for seconds. And Bonelli is encouraged by the response of operating, mechanical and engineering officers to what has been done thus far. PC officers, he notes "are now in a position to associate costs and causes at a given location at a glance. The program is not only supporting their knowledge of trouble areas but also pointing out areas that may be creeping up to trouble status."

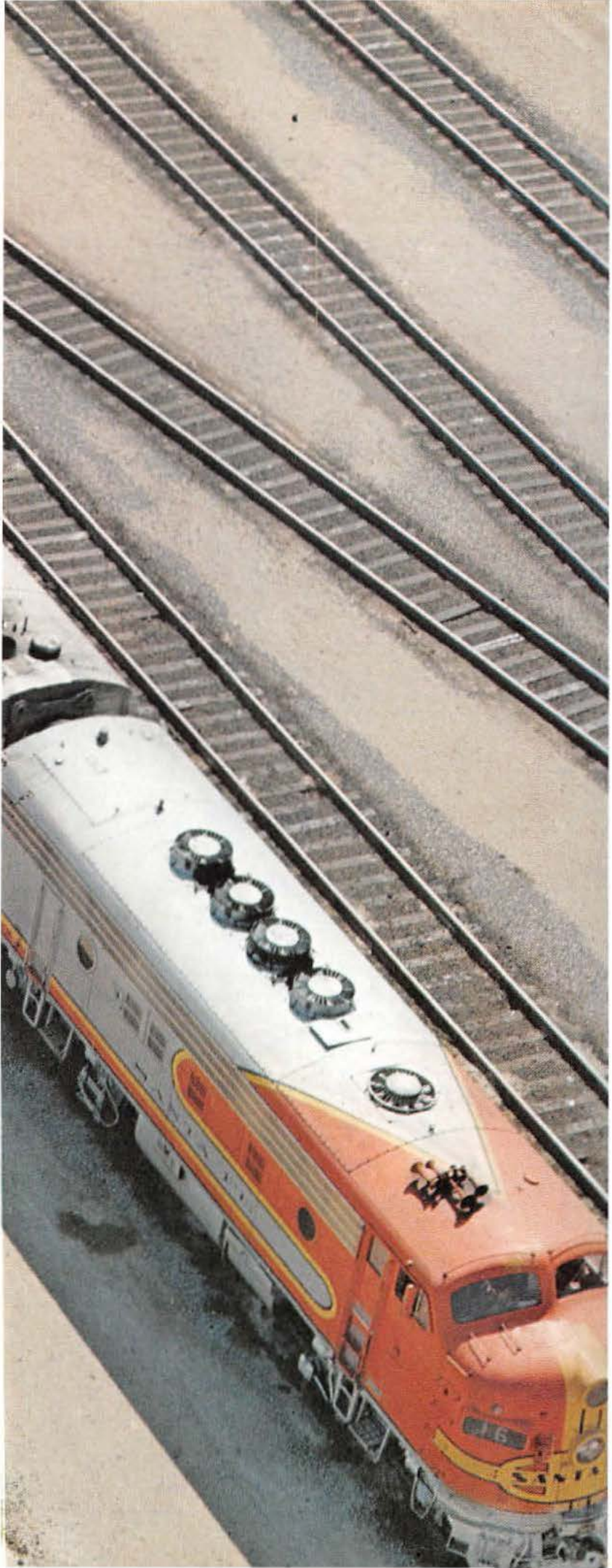
Bonelli concedes that the program is still new enough to have questions raised about it. But he believes that a few detailed run-offs will rather quickly and definitely establish the value of the new setup. In addition, he says, the safety department—and the computer—are really disinterested third parties "with no ax to grind with a given department. We can call things as they really are."

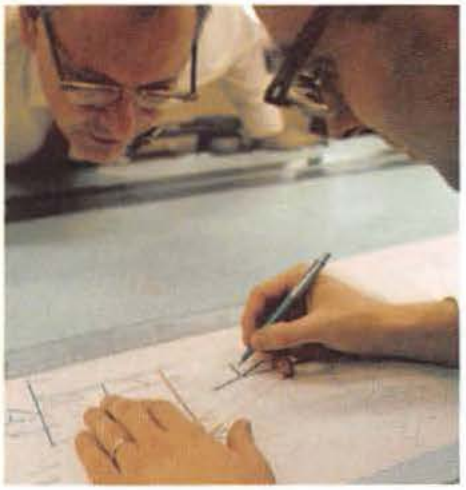
Finally, PC's program is also generating interest on the outside. The Federal Railroad Administration's Bureau of Railroad Safety has expressed keen interest, as have safety officers of several major roads—at least one of which is in the preliminary planning stages for adopting a similar program. ■

PROBLEM SOLVING AT A GLANCE
With computerization of safety reporting, Penn Central officers can tell instantly where problem areas may be developing. Here, Chief Mechanical Officer J. M. McGuigan (left), reviews some current reports with J. A. Bonelli, manager-safety.



What's the right mix?





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Illinois wants to help—but how?

If you want to live in a confused state, move to Illinois.

Illinois politicians, of whatever party loyalty, say they want to help urban mass transportation. But, Illinois has:

—A Republican governor and a Democratic lieutenant-governor.

—A state senate evenly split between the two major parties.

—A state house of representatives in which the Republicans hold a narrow edge.

—Chicago and Cook County firmly in control of Democrats.

—About as many programs for transit-aid as there are politicians proposing transit-aid.

● **Trouble, but . . .** On one thing there is agreement: Urban mass transportation in Illinois is in trouble. Downstate systems (i.e., those outside Chicago and Cook County) are raising fares, or depending upon local subsidy, or—in too many cases—going out of business. The Chicago Transit Authority has no money for capital projects and is now facing its first operating deficit. Commuter railroads are caught in a cost squeeze which is driving fares up.

Political infighting killed transit-aid twice last year—in regular and special sessions of the legislature. And, despite the multitude of programs being offered, it remains very much to be seen what (if anything) the lawmakers can agree upon in 1971.

Political complications are, in a word, staggering. For one thing, Illinois is about to begin operations under a new Constitution. For another, Chicago is in the midst of a mayoral-election campaign—in which the challenger to four-term Mayor Richard J. Daley has talked of CTA fare cuts. For still another, Chicago Democrats are also talking of fare cuts—but they would effect the change through state subsidy. Meanwhile, the governor has his program to push. And, at the Federal level, Sen. Charles Percy will apparently again be urging passage of financial-aid legislation.

● **The governor plans.** At this point, the big-ticket program belongs to Gov. Richard B. Ogilvie—who has proposed a $900-million bond issue, with $600 million going for construction of "supplemental" freeways, $200 million for capital improvements to mass-transit systems and $100 million for airport improvements. Under the soon-to-be state Constitution, this kind of action would not require a referendum—but it would need three-fifths approval in the legislature. Political observers have seen the emphasis on highway construction as designed, at least in part, to win support from downstate legislators and to silence traditional downstate opposition to programs benefitting Chicago. It may be worth noting, however, that the lieutenant-governor—a downstater—went on record opposing the highway plan on grounds that the state would be better off to wait a few years and then gain from increased Federal participation.

In general terms, transit operators seemed inclined to go along with the governor. But a CTA spokesman raised doubts, connected with (1) whether state action could come quickly enough to prevent still another fare increase, (2) how CTA could get necessary matching funds, and (3) how the authority could cope with its upcoming operating deficit, on which the governor's program would provide no direct help.

(By one estimate, CTA might be eligible to receive better than half of the dollars realized from sale of the $200-million issue, with commuter railroads coming in for about 35% and other transit agencies splitting the rest.)

● **On some things, agreement.** While there were arguments about specifics, however, there was also general acclaim for a couple of other points in the governor's over-all plan. Since his proposal would be based on sale of bonds—with repayment from motor-fuel tax funds for the highway program and from general state funds for the transit and airport programs—no new taxes would be required. Second, his proposal envisions creation of a state department of transportation, and there seems to be no essential disagreement over the need.

Where a DOT plan runs into trouble—apparently—is when the thinking gets around to what it would do. The governor (who had earlier set up an office of mass transportation in the state department of local government affairs) thinks a DOT should work on creation of a multi-county transit agency for the greater-Chicago area. At this point, the idea is not getting support from CTA. Instead, CTA spokesmen seem to favor "coordination" rather than the setting up of a wide-ranging and all-encompassing mass-transportation organization.

● **What the railroads think.** This particular difference of opinion was pointed up by the reaction of the Chicago area's commuter railroads to proposals for (1) construction of "huge, multi-million-dollar parking lots" at outlying CTA rapid-transit stations, and (2) expansion of the CTA system in Cook County. Burlington Northern, Illinois Central, Milwaukee, Chicago & North Western, Rock Island and Chicago South Shore & South Bend agreed: These proposals, they said, "are glaring manifestations of the need for a single transportation authority encompassing the six-county area of metropolitan Chicago."

The railroads put it this way:

"We are amazed that the Cook County Board proposed to ask for massive grants of Federal and state funds to create giant parking lots at outlying CTA rapid-transit stations, and that one CTA board member further proposes a $400-million expansion of the CTA, also largely with Federal funds, into the outer reaches of Cook County. Our amazement stems from the fact that such proposals demonstrate a concern only for the public inerest that is limited to the CTA and parts of Cook County. These proposals ignore the equally important mass-transportation needs of the hundreds of thousands of people, and the many agencies that serve them, in the five other counties of metropolitan Chicago.

"The Chicago railroads last August proposed the creation of a Chicago Metropolitan Area Transportation System that would coordinate the now fragmented services of all carriers in the six counties, including the CTA ser-

A GOOD RIDE—BUT WHO PAYS?
Despite the popularity of its services (e.g., the Dan Ryan line, above), CTA faces its first operating deficit.

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J. LINDSTROM

vice. It was advanced after a year of study as a constructive suggestion to all interests concerned about the problems of mass transportation in this area. Since that time no comment on this proposal has been made by the Chicago Transit Board, or for that matter, the Cook County Board, although it has received widespread press and public support. One of the purposes of such a single, all-encompassing authority was to eliminate piecemeal planning and fragmented approaches to our mass-transportation problems as characterized by the recent parking-lot and CTA-expansion proposals.

● **Traffic diversion.** "The Cook County Board's proposal would divert thousands of riders from commuter trains to CTA trains because of CTA's flat fare with which we cannot compete. It can be argued that large parking lots located at outlying CTA terminals may divert some motorists from the expressways to the CTA. But there are 25 other carriers in the six-county metropolitan area of Chicago, including Cook County, which provide transportation to more than 400,000 riders daily. The parking lot plan will divert riders from these suburban rail and bus carriers as well.

"Most of these commuter railroads and suburban bus lines are operating at such substantial losses that any further diversion of their riders will result in serious deterioration of their services, affecting hundreds of suburban communities in all six counties. In other words, what is wrong with the recent proposals is that they are being made on the assumption that what is good for Cook County expressways and the CTA is automatically good for Chicago metropolitan area transportation.

"The commuter railroads of Chicago are unwilling to tolerate further expansion proposals for the CTA either directly or by satellite parking lots designed to attract suburban riders to the CTA until discussions and legislative proposals are undertaken to create a truly coordinated regional transportation agency that involves all mass transportation and is designed to serve all the public in the six-county area.

"We will oppose such unilateral expansion with public funds and we seriously question that the U.S. Department of Transportation will grant Federal funds for mass-transit improvement to any agencies where a comprehensive plan for a regional system embracing all modes does not exist, or where such grants will seriously and adversely affect the ability of important transportation agencies to provide necessary services. Such adverse impact on many Chicago area carriers is inevitable if the recent proposals were to be put into effect." ■

TWIN CITIES

Can rail transit change the picture?

IS THERE A BETTER WAY? Twin Cities rapid transit proponents say yes.

Like so many emerging population centers, the Minneapolis-St. Paul area is feeling growing pains. Too big anymore to play the urban mobility game with automobiles alone, yet not quite big enough in its own estimation to have a full-fledged rapid-transit network, the Twin Cities area finds itself in a transportation dilemma.

Actually, it's more like a series of dilemmas, says the Twin Cities Area Metropolitan Transit Commission in a lengthy report submitted to the Minnesota Legislature. MTC identifies these major problems facing the state's most densely-populated area:

—The 1,865,000 people now living in the seven-county area can expect to see their numbers grow by one-half to three-quarters of a million in the next 15 years and nearly double in 30 years.

—Because it is a heavily auto-oriented society that has seen fit to ring and lace the area with multi-lane freeways, Twin Cities is seeing inner-city sections turned into "day care centers" for the automobile.

—One out of seven families doesn't own an automobile, which makes an expanding public transportation system absolutely essential.

—The nine-letter dirty word—pollution.

The MTC report is based on a joint study of the Twin Cities' short- and long-range transportation needs made by Daniel, Mann, Johnson & Mendenhall and Midwest Planning & Research, Inc., consultants. The commission thinks it has come up with the type of plan which will prevent the area from bogging down in a transportation quagmire over the next several years.

● **Rail—but when?** So far as rail rapid transit's appearance is concerned, MTC feels that it may be 10 years off, most likely 15 years. Even then, rather than choose rail, planners may select some other type of fixed guideway system. New technology may dictate something else. Pollution—or rather, a concern for it—could become the staunchest ally of any rail rapid-transit developments. Pollution opponents could perhaps move fixed-guideway systems up several notches on the time schedule, and they would probably opt, too, for rail transit rather than rubber-on-a-concrete-fixed-guideway.

Rail has one other advantage over rubber on a fixed guideway, especially in the Twin Cities area. There is one big reason for holding a Winter Carnival there each year—snow. And snow, as MTC officials point out, has far less effect upon rail operations than on anything like the rubber-tired vehicles operating on today's fixed guideways.

● **For now, the bus.** At the outset of the development of the areawide transportation system, the bus will reign supreme. Under what it calls a System Concept Plan, MTC will employ a "family of vehicles" concept. All this will eventually culminate in the establishment of a fast link, fixed guideway

Watching Washington

REID BEDDOW

ASTROlogy

By March 30 Congress must decide whether to continue funding the supersonic transport plane. A vote up or down for SST will clear the way for Senate Commerce Committee consideration of ASTRO, so ASTRO General Counsel George Smathers already is polishing his lead-off testimony.

Meanwhile, the first ASTRO legislation has been introduced—H.R. 28, to provide for 50-year amortization of railroad grading and tunnel bores. The bill's sponsor is Rep. Wilbur Mills (D-Ark.), chairman of the House Ways and Means Committee, to which the measure has been assigned.

At the AAR, meanwhile, the staff of ASTRO is expanding: D. Michael Murray, former Norfolk & Western lawyer and onetime assistant Postmaster General, has been appointed legislative affairs counsel; Tom White of AAR's news service has signed on as a writer, and Seaboard Coast Line Assistant Vice President Emory F. Waldrop, Jr., is director of legislative affairs, a new title. Waldrop will serve under AAR Legislative Affairs Vice President Patrick H. Mathews. Mathews and Waldrop, of course, handle many matters besides ASTRO, but Waldrop's appointment does mean there will be another hand at the oars.

OTHER SIGNS AND PORTENTS

Ready for introduction in Congress is an alternative proposal to car-equipment bills drawn up by both the NIT League and the AAR.

The alternative, vastly more ambitious, was drawn up by four railroad brotherhoods, the United Mine Workers, two shippers described as "very large" but not otherwise identified, and electric power interests.

The two earlier bills would (1) create a modest, quasi-public National Freight Car Corporation with non-dividend stockholders and no direct Federal expenditure required and (2) provide a plan whereby individual railroads might qualify for government insurance of $3 billion of equipment trust certificates.

The labor alternative seemingly combines the objectives but would simply establish a government-owned corporation, "Fastcorp," (for Fast Freight Systems), which would be eligible to acquire up to $3 billion in car and motive-power equipment through government-guaranteed loans.

Although both proposed corporations would initially raise revenues ($10 million to $30 million) through a 50-cent per-diem surcharge on use of equipment, to be cut off after a certain date, Fastcorp would receive $20 million in direct U.S. aid for start-up costs.

Fastcorp would be run by a 13-man board composed of the secretaries of the Treasury and Transportation, the chairman of the ICC, four railroad officers, and representatives of shippers, labor, public, consumer, financial and state regulatory interests.

which will be the entire system's backbone. But, the bus, in several forms, must come first, followed by vehicles operating on their own guideways.

The area now has urban and suburban bus service. Seeing that the then-privately-owned Twin City Lines, Inc. was facing financial problems, MTC in 1969 decided to purchase it. This system now represents about 95% of public transportation in the area at present. As envisioned by MTC, the existing system will evolve into one made up of local and feeder buses, express buses in less congested corridors and circulation/distribution people-movers within certain major centers which will develop as the Twin Cities area grows.

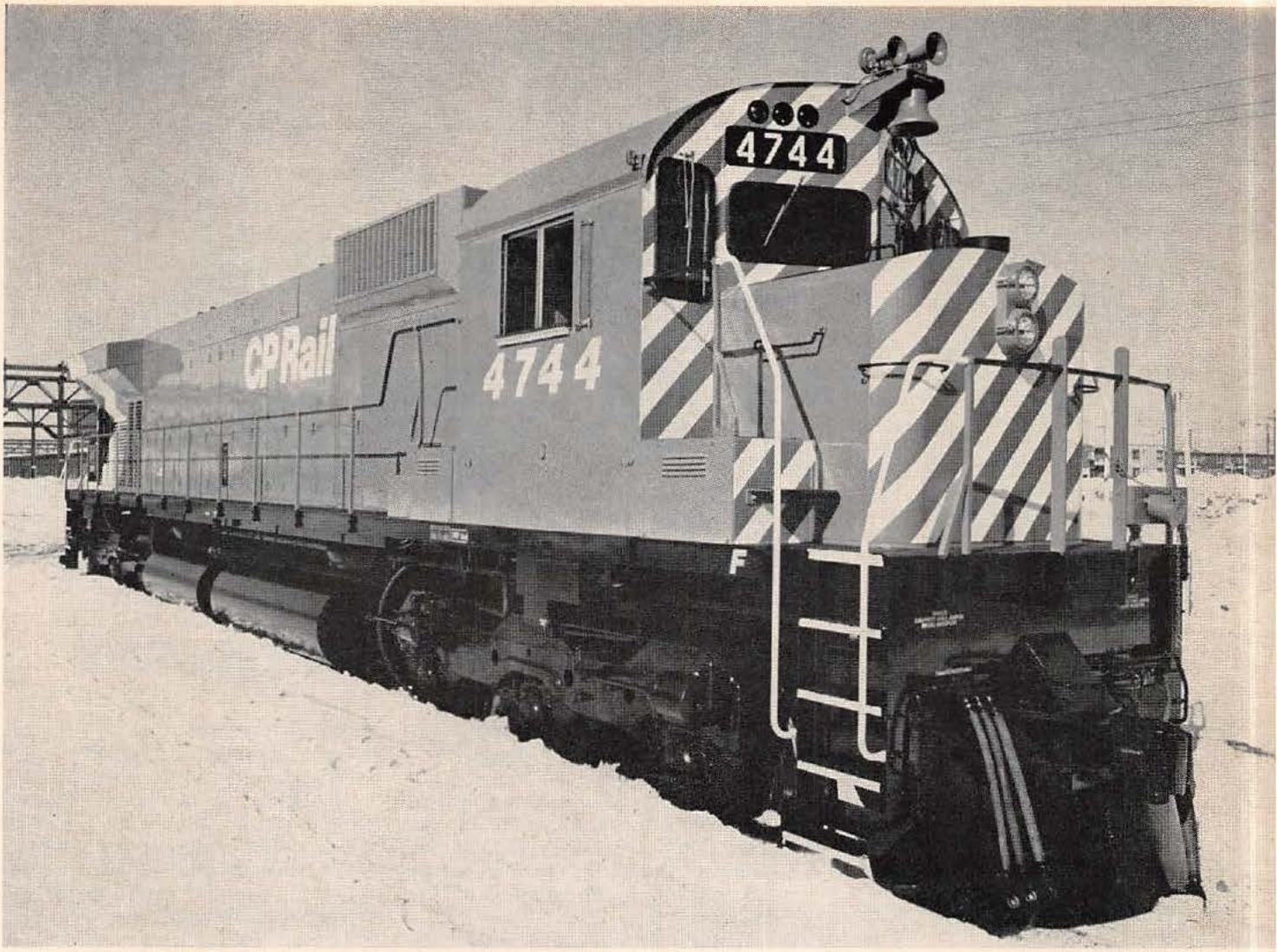
● **Then—and now.** Although the total transportation system as outlined in MTC's System Concept Plan may be several years away, the day when such a concept has to be either accepted or rejected is near at hand. The decision will have to be made in the 1973-75 period, says Lester M. Bolstad, Jr., acting executive director of MTC.

Meanwhile, the concept is not without opposition. The state's highway lobby is fearful of any idea that might drain user taxes from highways. Although St. Paul's city council supports the long-range goals of MTC, the city's mayor, Charles McCarty, doesn't seem to be shaping up as a supporter of mass transit in any form. The Ramsey County Board, which takes in St. Paul, favors the plan.

● **The dollar problem.** The problem at hand is one of money. It's up to the Minnesota legislature to solve this one. Funds are needed to carry out a bus-improvement plan and an active demonstration program. Furthermore, money is needed to refine the long-range transit plan including preparation of a capital-funding program which would ultimately involve Federal funds. The latter plan would have to be ready for presentation to the 1973 legislature, warns MTC, if the area expects to escape a throttling transportation calamity.

As MTC points out in its report to the legislature, a new transit system "will cost a great deal of money." Early in its study of the area's transportation needs, MTC determined that a 59-mile system using rail and operating in nine corridors might cost as high as $1.4 billion. The legislature is not expected to take any transportation expenditures lightly, but MTC feels the lawmakers are aware of the impending problem and will be taking favorable action on the solutions offered in the MTC plan.

The Minneapolis-St. Paul venture into the realm of big-time urban transportation does seem to bring out one point vividly: It's mighty tough getting the foot in the door. ■



MLW: Largest single-engine unit

While others have experimented, one Canadian builder has added a 4,000-hp standard locomotive to its line; CP has put the first unit into service.

Canadian Pacific has just started to operate a 4,000-hp diesel-electric locomotive, largest single-engine unit yet to be announced by any locomotive builder. While others have experimented with ratings in this range, it remained for Canada's MLW Industries to formally designate a unit of such power as part of its standard locomotive line.

The 4,000-hp unit, designated the M640 in MLW's "M" series has been assigned to CP Rail's fast freight service between Montreal and Calgary, Alta., about 2,200 miles. Already in this pool are 121 other units ranging fom 2,400 to 3,600 hp.

● **Encouragement and acceptance.** R. L. Grassby, president and general manager of MLW Industries, a division of MLW-Worthington, credits CP Rail's "acceptance and encouragement of progressive technology" as giving MLW an incentive to design and produce motive power that is selling competitively, not only in Canada, but in other nations.

The M640, like the 3,000-hp M630 and 3,600-hp M636, features high-adhesion trucks, a new simplified air handling and ventilation system, inertial air filtration, unitized water and lubricating oil systems and modular design of major subassemblies.

The 4,000-hp locomotive is powered by a new 18V251 engine operating at 1,100 rpm. The 9-in. bore and 10½-in. stroke are unchanged from the earlier 251 diesel engines, including the 16-cylinder version which powers the 3,000-hp and 3,600-hp models. In its 18-cylinder version the engine uses a water-cooled, stainless-steel gas inlet casing at the turbocharger and has increased aftercooler capacity. Discharge air is supercooled by a separate water subsystem. Exhaust manifold is of the multi-pipe type, compared with the single-pipe arrangement used on the 16-cylinder engines.

● **New features.** The M640 utilizes an a-c/d-c General Electric transmission system with alternator output rectified for use by the d-c traction motors, The high-adhesion truck and traction motors have performed "most suc-

cessfully" on all MLW six-axle models built since 1967. Riding characteristics of heavy six-axle locomotives are improved with the carbody supported by rubber units at the outer ends of the truck transoms. A swivel block attached to the carbody through two rubber units provides lateral and transmits the tractive forces.

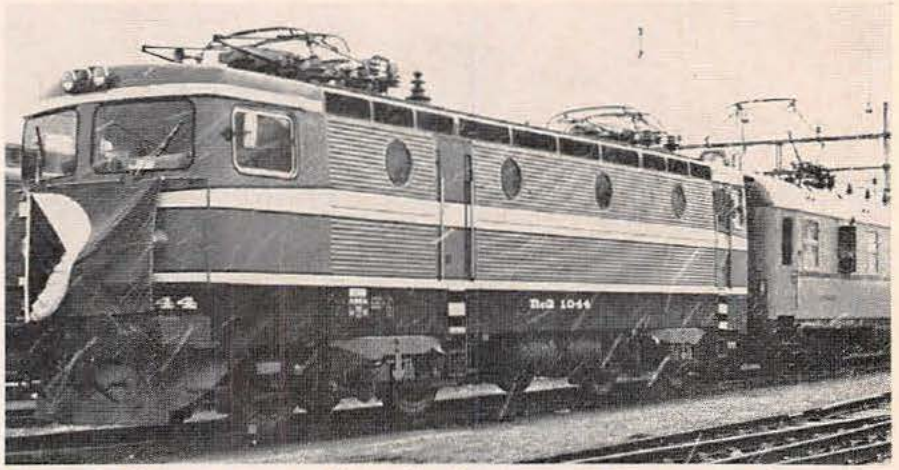
There is an emphasis on space utilization and crew comfort in the new cab. To this end, the cab front was squared off to give more space in the short hood for such equipment as toilet, and a radio-remote-control package. A new cab heating system has been applied which pressurizes the cab.

● **Another milestone.** Since its founding almost 70 years ago, MLW Industries has been continuously involved in the production of motive power for Canadian and overseas railways. The company delivered the first modern Canadian-built diesel to CP in 1948 and will shortly deliver its 2,000th diesel locomotive. Since acquiring one-time-parent Alco's designs, MLW is the only company in Canada manufacturing locomotive diesel engines.

In addition to CP Rail, MLW has recently shipped locomotives to Canadian National, Pacific Great Eastern, East Pakistan, Sierra Leone and India. On its books are orders for CN, PGE, Roberval & Saguenay, East Africa and Jamaica. It will soon be building additional units for Alaska's White Pass & Yukon, and is regularly quoting on locomotives for other U.S. railroads.

After Canadian railways completed their switch to diesels a decade ago, MLW had "a couple of dry years" in which it produced transit and freight cars. Right now MLW, in conjunction with the Aluminum Company of Canada and Dominion Foundries & Steel, is working on a new type of passenger train, the LRC (lightweight, rapid, comfortable). It is designed for high-speed intercity travel over existing trackage with the prototype coach nearing completion at the Montreal plant.

● **And electrification?** With talk of electrification in both the Canadian west (see box) and in Labrador, MLW expects to move aggressively for a share of any electric locomotive business which could develop. "Indications are," says MLW's Grassby, "that electric locomotives make more and more economic sense." For the past five years the Canadian market for new locomotives has been 100 to 120 units annually. It is expected that diesel locomotives will continue to be a sustaining feature of the business, but "in ten years electric locomotives will be important." Grassby sees some existing designs, such as the high-adhesion truck, operating even more effectively under straight electric units. ■



SWEDISH UNIT was tested on Norwegian line converted from diesel to electric.

CP LOOKS AT OVERSEAS ELECTRICS

A Swedish electric locomotive on the Norwegian State Railways carrying a Canadian Pacific banner? Yes, that was the picture the last week in February, but eventually it might get much larger. Very shortly CP will be teaming with Southern Pacific in another electric locomotive test on the Swiss Federal Railways.

It becomes increasingly evident that CP's interest in 50,000-volt a-c electrification of 850 miles of its lines west of Calgary (RA, Jan. 25, p. 37) is more than academic S. M. Gossage, senior executive officer of CP Rail, recently told the Canadian Transport Commission that electrification of the main line from Calgary, Alta., to Vancouver, B.C., and from Golden, B.C., to Sparwood, B.C., "would offer operating advantages that would enable operation up the controlling grades at higher speed and also would enable a faster movement of trains from a stop in sidings or at other points and thereby would tend to increase capacity." CP is predicting a doubling of bulk traffic over its Rocky Mountain lines during this decade.

So far, according to Gossage, studies have not established if there is now justification for the large expenditure that electrification would entail. Nor has it been calculated at what traffic level such a step might be taken. Presently, CP's emphasis is on the technology of electrification. Already the heavy ore line north of the Arctic circle between Kiruna, Sweden, and Narvik, Norway, has been checked.

The latest investigation involves a 6,000-hp, four-motor thyristor-controlled a-c electric locomotive built by ASEA of Sweden for the Swedish State Railways and leased, along with the Swedish dynamometer car, for the CP tests. "We are most grateful that cooperating in the tests are technicians from both the Norwegian State and Swedish State Railways and ASEA, a leading manufacturer of electric locomotives," observed G. T. Fisher, director of CP's technical research and development. He participated in the testing along with D. F. Haney, assistant chief of motive power and rolling stock.

At one stage, consideration was given to running the tests on CP lines in British Columbia, using mobile generator cars. High costs and the scarcity of specialized test equipment ruled out the Canadian test site.

Then attention was focused on a 52-mile segment of the Oslo-Bergen line in Norway where grades and climate closely approximate conditions encountered in British Columbia. Magnetic tapes and charts recorded during the test are being returned to Canada in "raw" form for analysis on computers.

"We know that the exact type of locomotive used in the test would not be suitable for CPR operations," explains Fisher. "The purpose of the test is to prove the design performance of the present locomotive so that it can be translated to a larger heavier locomotive, allowing us to determine what kind of performance is possible on CP."

Haney adds that "in addition to proving the performance possible on an electric railroad, the results of these tests will be useful in designing future diesel locomotives." CP is much interested in the high adhesion coefficients developed between wheels and rail in Europe.

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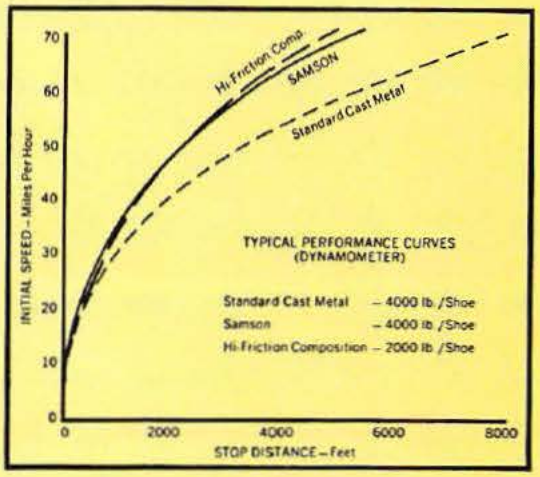

RAILROADS ARE CONDUCTING EXTENSIVE SERVICE EVALUATION OF SAMSON SHOES

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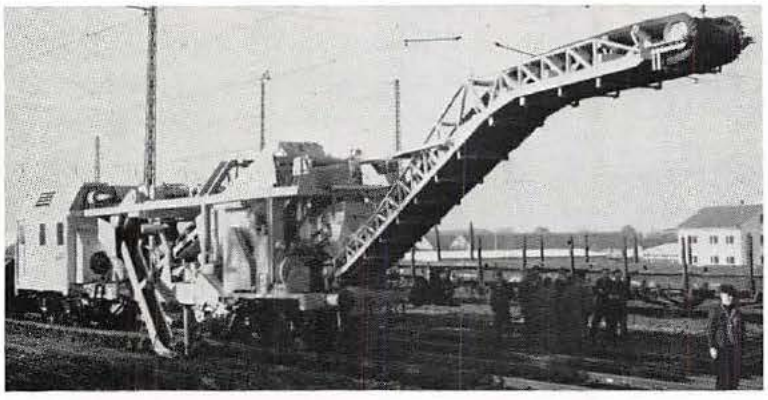

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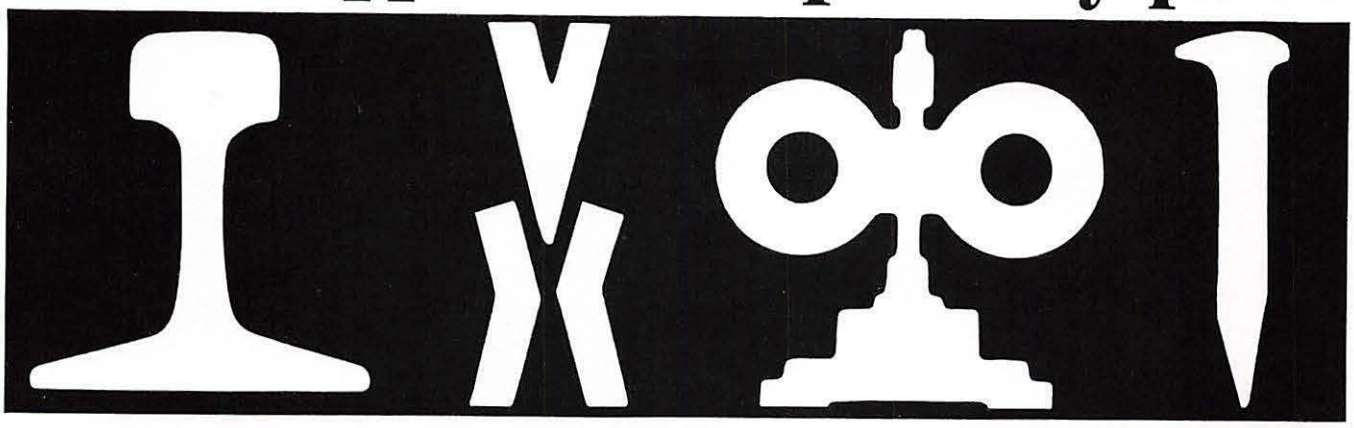

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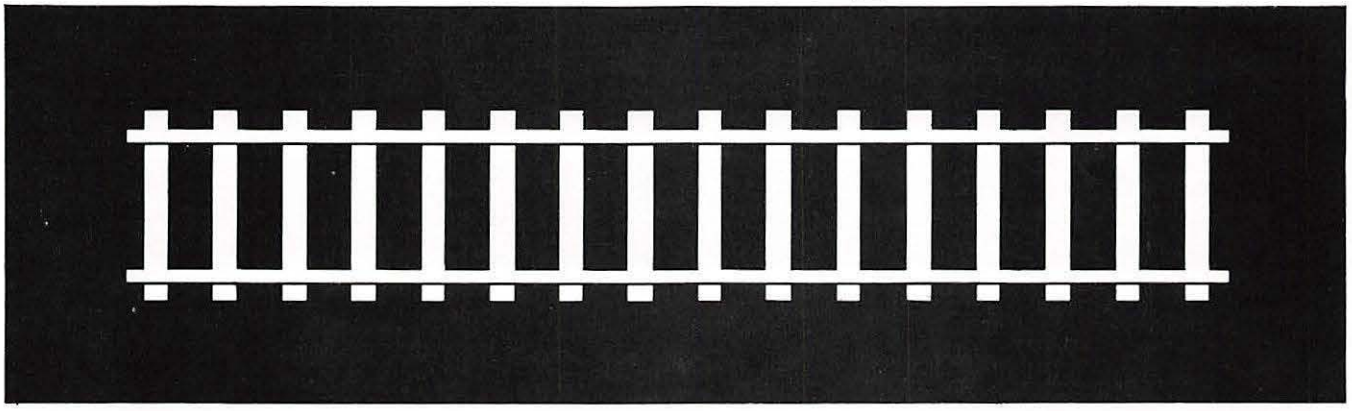

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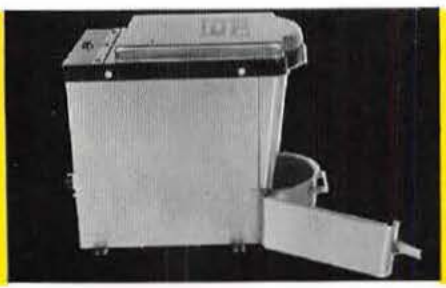

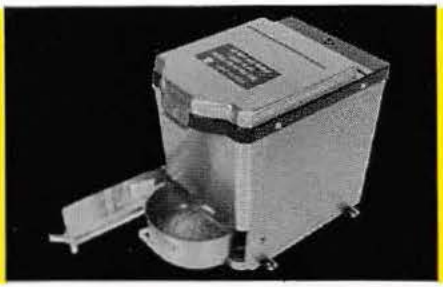

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Railpax incorporators say, "We can do it"

Will Railpax be ready to roll on May 1? John P. Olsson, Deputy Under Secretary of Transportation and one of eight Presidentially-appointed incorporators of the National Railroad Passenger Corp., had grave doubts until a few weeks ago. But he has changed his mind.

"When we first assembled at the end of December, there was a universal feeling that we had an impossible task to do in four months," says Olsson. "Now, there's a general feeling that we can do it."

To "do it," the incorporators and their teams of consultants, lawyers and equipment-surveyors have been putting in long hours at the corporation's L'Enfant Plaza headquarters in Washington, in meetings with railroad presidents and attorneys, and in visits to railroad properties around the nation. As of last week, Railpax still was searching for answers to questions ranging from the relatively simple (a policy on passes) to the complex (working out operating and service contracts with participating carriers).

The optimism of Olsson and other incorporators that Railpax will meet its deadline comes in the face of persistent reports that there will be an extension. A bill was introduced in the last Congress providing for a six-months extension. It got nowhere. It has now been reintroduced as H.R. 709. A bill introduced Feb. 27 by Senator Frank Church (D.-Ida.) to require Railpax to offer service in six states not presently included in the network could also bring about a delay.

Out of interviews with incorporators and others close to the scene, this picture emerges:

Who will join Railpax? Twenty of the 22 eligible roads are expected to sign up. One southern and one western road are on the iffy list.

If the arithmetic turns out to be too heavily in Railpax's favor, there could be other holdouts.

What is the biggest single problem as of now? Negotiating operating and service contracts with the railroads. Initial meetings have been held by the incorporators with railroad presidents; there have been subsequent meetings between attorneys for the two sides. An agreement is being sought first on general principles; those principles will then be reduced to legal contracts. Discussions are still in the general-principle stage.

> But problems remain if the May 1 deadline is to be met. One of them is finding a $100,000-a-year president

The thorniest problem is, of course, arriving at a cost-reimbursement formula—e.g., how much of track maintenance costs should be pro-rated to Railpax? The incorporators are reported to have asked the railroads to go easy on throwing in fully-allocated costs, at least long enough for Railpax to get on its feet. While sympathetic to the corporation's problems the railroads are said to fear being put into the position of giving hidden subsidies to the corporation.

Who will run the corporation? Two executive recruitment firms are screening hundreds of candidates for the top 20 jobs at Railpax. For president and chief executive officer, the field has reportedly narrowed down to half a dozen. The pay will be good: around $100,000 a year, plus deferred compensation and pension benefits. The final figure is negotiable. (While there has been some criticism of salary levels Railpax is reportedly ready to meet, there is a strong feeling among many observers that if Railpax is to become a going concern, it must be prepared to pay the price for executive talent that other going concerns pay.)

A railroad man is likely to be brought in as operating vp.

Railpax will have a 15-member board of directors—eight named by the President, including all of the incorporators except Olsson, who will be replaced by the Secretary of Transportation; and seven named by stockholders of the corporation. As common stockholders, participating railroads will name three directors; preferred stockholders will name four. (Common stock will have a par value of $10 a share, preferred a par value of $100. Preferred stock, to be offered in the private market, will have fixed, cumulative dividends of $6 a year.)

Who will run the trains? Railroads will operate the trains under contract with Railpax. Operating employees will work for the railroads, not Railpax—which means that existing seniority rules will apply. It also means that the railroads, not Railpax, will deal with the unions.

How many jobs will be cut? Probably around 15,000—or slightly more than half of the 28,000 existing jobs related to passenger service. The reduction in employees is expected to be proportionate to the 55%-plus reduction in the number of intercity trains.

Who is responsible for employee protection? Under terms of the act creating the corporation, railroads must work out employee-protection agreements as a condition to joining Railpax. It is hoped that a national pattern can be established, with common terms applying to all railroads and all unions. Initial discussions have opened. Incorporators emphasize that this is essentially a matter between the railroads and the unions. "Negotiating employee protection is part of the admission fee," notes one.

How about terminals? Railpax sees this as a major problem; as of last week, it was an unresolved one. Not anxious to maintain costly terminals built to serve a busier era, Railpax is looking at alternatives—e.g., constructing smaller stations on the outskirts of cities. As for terminal employees, this also remains to be worked out—they could either stay with the railroads or become Railpax employees.

Are airline-type innovations planned? Use of American Airlines' computerized national ticket-reservation system (and answering service), on a piggyback basis, is being considered.

American is also studying the possibilities of on-train fast food service like that now provided by its Sky-Chef subsidiary.

Use of airline-type stewardesses on trains is being looked into.

Why are airlines so eager to work with Railpax? They see the corporation as no real competitive threat—if anything, the airlines would like to give much of their short-haul, corridor business to trains and concentrate on the long hauls for which today's new aircraft are better suited.

What are equipment plans? Railpax

is expected to purchase most of its equipment from the West and South, very little from the East. Klauder and Associates is presently well along on a survey of available cars and locomotives.

There will be no new equipment for a couple of years (America's lag in designing new passenger equipment is viewed as a major deterrent here), but rehabilitation of equipment will begin soon after May 1.

What happens if a railroad not joining Railpax decides to discontinue its trains when the period of compulsory operation ends? Railroads not entering into contracts with the corporation may file discontinuance notices on or after Jan. 1, 1975, whereupon, under terms of the Rail Passenger Service Act of 1970, "the corporation may undertake to initiate passenger train operations between the points served."

Who will promote Railpax service? The New York firm of Harshe-Rotman & Druck has been retained as p.r. counsel to the quasi-public corporation. Meanwhile, separate talks are going on with advertising agencies competing for an account that will start in a comparatively small way but could rise to around $4 million a year. ("Before going heavily into advertising, we want to be sure we have something to advertise," says one incorporator.)

Will Railpax go after mail traffic? Yes, but on a strictly service-competitive basis. There are no plans to use government muscle to divert mail from freight trains to Railpax.

Will passes be honored? No policy has yet been established. If passes are authorized, the number will probably be small.

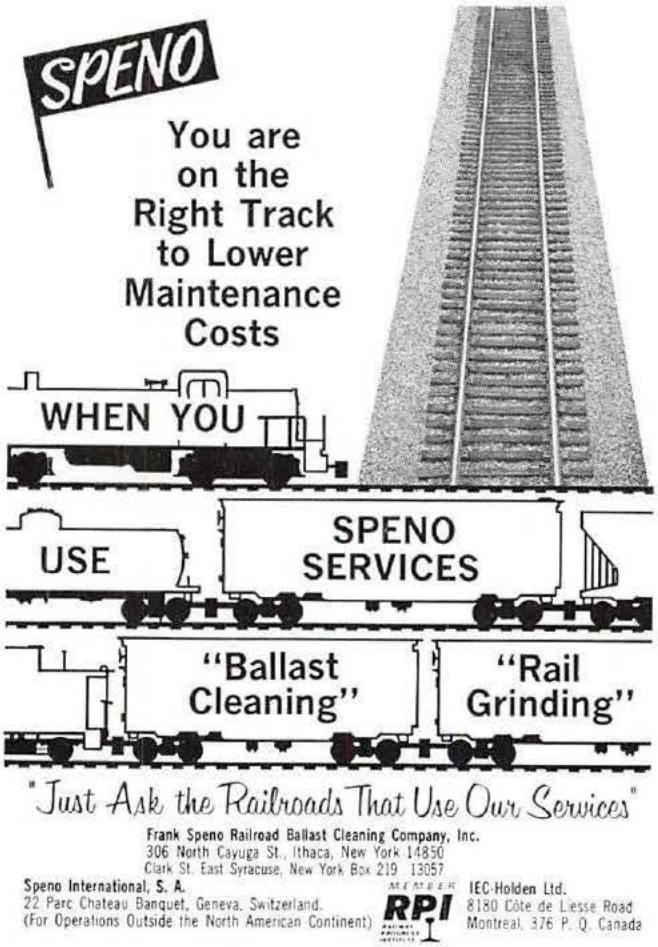
What will the corporation's financial situation be? Railpax expects to begin life with $200 million a year in passenger revenues plus whatever accrues from mail and express traffic. (By comparison, the other big quasi-public corporation, Comsat, is a 75-million-dollar a year operation.) Realists at L'Enfant Plaza expect Railpax to lose money for several years, but there is a strong feeling that the corporation will eventually operate in the black.

As for capital, Railpax will have a $40-million government grant, plus an anticipated $200 million in "entry fees" from railroads (who, in return for common stock, will pay in a portion of their 1969 passenger losses, based on one of several formulas). In addition, Railpax has authority to float $100 million in government guaranteed loans.

Isn't this all a field day for lawyers? Says one incorporator: "It's important to remember that there are 22 railroads that could join this corporation—and I dare say that each has probably a minimum of four lawyers working on the problem. So we're confronted with close to 100 railroad attorneys. We aren't fielding that big a group. But we have some excellent talent in this area."

What do the incorporators get for their trouble? With the exception of DOT's representative, each gets $300 per meeting; they have been meeting three to five times a week. Observers do not find these fees out of line with the earning power of the incorporators; they may, in fact, be low. In addition to these meetings, the incorporators have been assigned individual areas of responsibility; most put in long hours at these tasks.

What is likely to happen on May 1? There will be fewer trains—but there will be no discernible improvement in the remaining service. One worry of the incorporators is that the public does not realize this. A main job of the corporation's public relations counsellors will be to let the public know precisely what to expect—and what not to expect—when the corporation takes over. ■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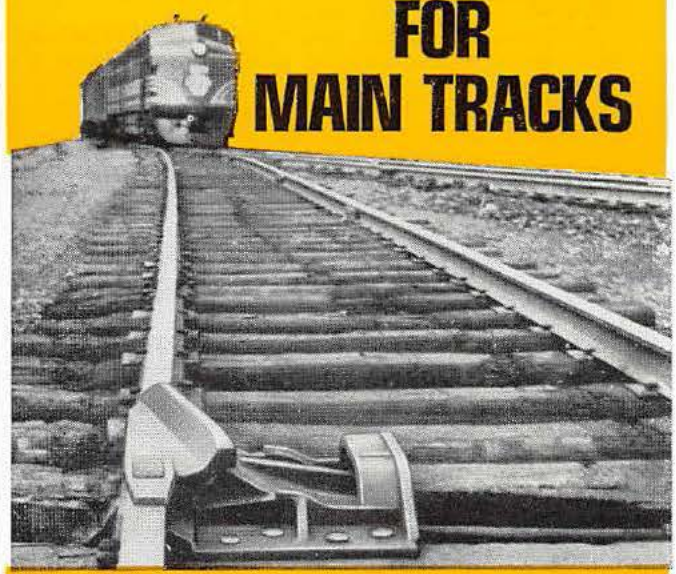

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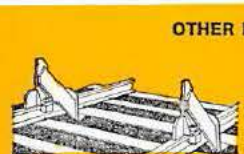

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People in the News

CANADIAN PACIFIC.—C. J. Flear, assistant superintendent, Prince Albert, Sask., appointed system transportation analyst, Vancouver, B.C., succeeding **J. C. Brigham,** transferred.

T. M. Craig, assistant superintendent material handling and damage prevention, Montreal, appointed superintendent of car service there, succeeding **E. Barlow,** named transportation assistant, Montreal, replacing **D. S. Colling,** promoted. **R. W. Fallow,** assistant superintendent car service, Montreal, succeeds Mr. Craig. **J. D. Harris,** supervisor material handling & damage prevention, Toronto, succeeds Mr. Fallow. **J. H. Sadler,** supervisor material handling & damage prevention, appointed chief supervisor, material handling and damage prevention (special services), with headquarters as before at Montreal.

R. A. Food appointed director budgetary control, Montreal. He will be responsible for co-ordinating development and flow to the president of operating reports and information on profit plans and capital expenditures of all CP profit centers and subsidiaries.

E. H. Shute, project manager for Calgary's $14 million Alyth Yard project since 1969, appointed manager, Alberta. He will continue as head of the Alyth Reconstruction Project until the new computerized yard goes into full operation this spring.

The following regional managers, freight sales, named: **C. G. Seiss,** Eastern Region, New York; **C. A. MacKenzie,** Central Region, Detroit, Mich.; **W. W. Schader,** Midwest Region, Chicago. **O. C. Ulmer,** district manager, freight sales, Minneapolis, Minn., appointed assistant regional manager, freight sales, Midwest Region.

District managers, freight sales: **J F. Malone,** Minneapolis; **R. R. Morin,** New York; **W. D. Reeves,** Spokane, Wash.; **A. G. Bower,** Portland, Ore.; **W. G. Wiley,** Seattle, Wash.

R. A. Hasenstab, regional manager, freight sales, Midwest Region, Chicago, retired Dec. 31.

CHESAPEAKE & OHIO—BALTIMORE & OHIO.—Hays T. Watkins, Jr., vice president in charge of the administrative group, elected president and chief executive officer, Cleveland, effective March 31, succeeding **Gregory S. DeVine,** who will reach retirement age on March 20. Mr. DeVine will continue as chairman, Executive Committee, C&O, and chairman, B&O.

Tom Johnson, managing editor, **Chessie News,** Cleveland, appointed public public relations manager, C&O-B&O, Huntington, W. Va., succeeding **Willis W. Cook,** named public affairs manager, Washington, D.C. He will also be field editor of Chessie News.

Frank J. Householder, Jr., manager personnel-employment, appointed assistant to vice president in charge of equal employment opportunity, Personnel Services Department, with headquarters as before at Baltimore.

Willis W. Cook appointed public affairs manager, Washington, D.C. Mr. Cook will also be regional public relations manager for both roads in Virginia, succeeding the late **Albert J. Sicnolf,** Mr. Cook has been regional public relations manager for the Western Region and part of the Southern Region, with headquarters in Huntington, W. Va., since 1955.

C. H. Heiert, supervisor of equipment & service, C&O Baltimore, appointed customer service manager, Cincinnati, Ohio.

CHICAGO & NORTH WESTERN.—Jerome W. Elliott, regional sales manager, Philadelphia, appointed general sales manager-western region, Chicago. **William J. McDonnell,** district sales representative, Philadelphia, succeeds Mr. Elliott, and in turn is succeeded by **G. G. Sorley,** regional service manager there. In St. Paul, **Thomas J. Bagen,** assistant manager, named manager-rates. In Milwaukee, **Albert T. Turner,** district sales representative, named regional service manager; **Craig H. Schulz** and **Bart W. Korb** appointed district sales representatives. Messrs. Schulz and Korb were previously regional service managers, Milwaukee and Detroit, respectively.

Hays T. Wilkins, Jr.
C&O-B&O

Paul F. Cruikshank
FW&D

CHICAGO CAR INTERCHANGE BUREAU.—B. F. Anderer, assistant superintendent, named superintendent, succeeding **Henry L. Hewing,** who retired Dec. 31, 1970, after 52 years' railroad service, the last 21 years with CCIB.

DELAWARE & HUDSON.—D. M. Huggins, assistant chief mechanical officer—locomotive, **Erie Lackawanna,** Cleveland, named chief mechanical officer, D&H, Albany, N.Y., succeeding **W. E. Travis,** resigned to join **Amoskeag Co.**

DENVER & RIO GRANDE WESTERN.—H. E. Cash, regional manager, Denver, advanced to manager-marketing services there **T. D. Odwalt** succeeds Mr. Cash.

ERIE LACKAWANNA.—H.P. Zydor, superintendent—passenger operations, Hoboken, N.J., appointed assistant chief mechanical officer—locomotives, Cleveland, succeeding **David M. Huggins,** promoted to chief mechanical officer, **Delaware & Hudson,** Albany, N.Y. **Edward R. Hogan,** division director of data control, Marion, Ohio, succeeds Mr. Zydor.

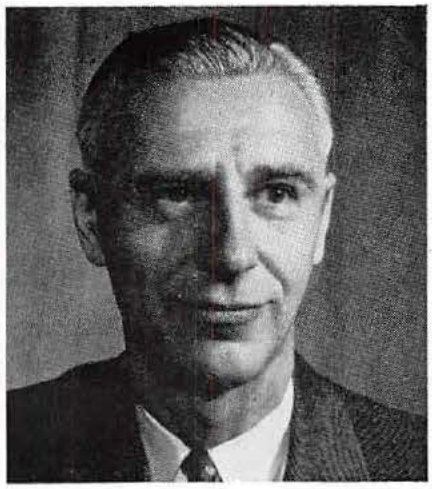
The following appointments have been made at Hoboken: **George P. Kirtley,** regional manager intermodal traffic; **James G. Decker,** sales manager intermodal traffic; **George W. Krom,** sales manager mail-express consolidator traffic; **Raymond E. Coughlin,** coordinator intermodal traffic; and **Edward D. Vander Woude,** coordinator intermodal traffic.

FLORIDA EAST COAST.—James T. Rice appointed vice president, with responsibility for accounting and data processing, a new position. Mr. Rice was formerly controller, Cargill, Wilson & Acree, Inc., advertising firm based in Richmond, Va., prior to which he was comptroller of the **Richmond, Fredericksburg & Potomac.**

FORT WORTH & DENVER.—Paul F.

ABITIBI ANNOUNCEMENT

WILLIAM G. IRVINE



JAMES A. SAUNDERS

Abitibi Paper Company Ltd. announces the appointment of William G. Irvine as General Manager of Transportation. Mr. Irvine brings to his new position 25 years experience in the transportation industry. Mr. Saunders, a well known figure in the pulp and paper traffic field, retires after 35 years of service with Abitibi.

[Advertisement]

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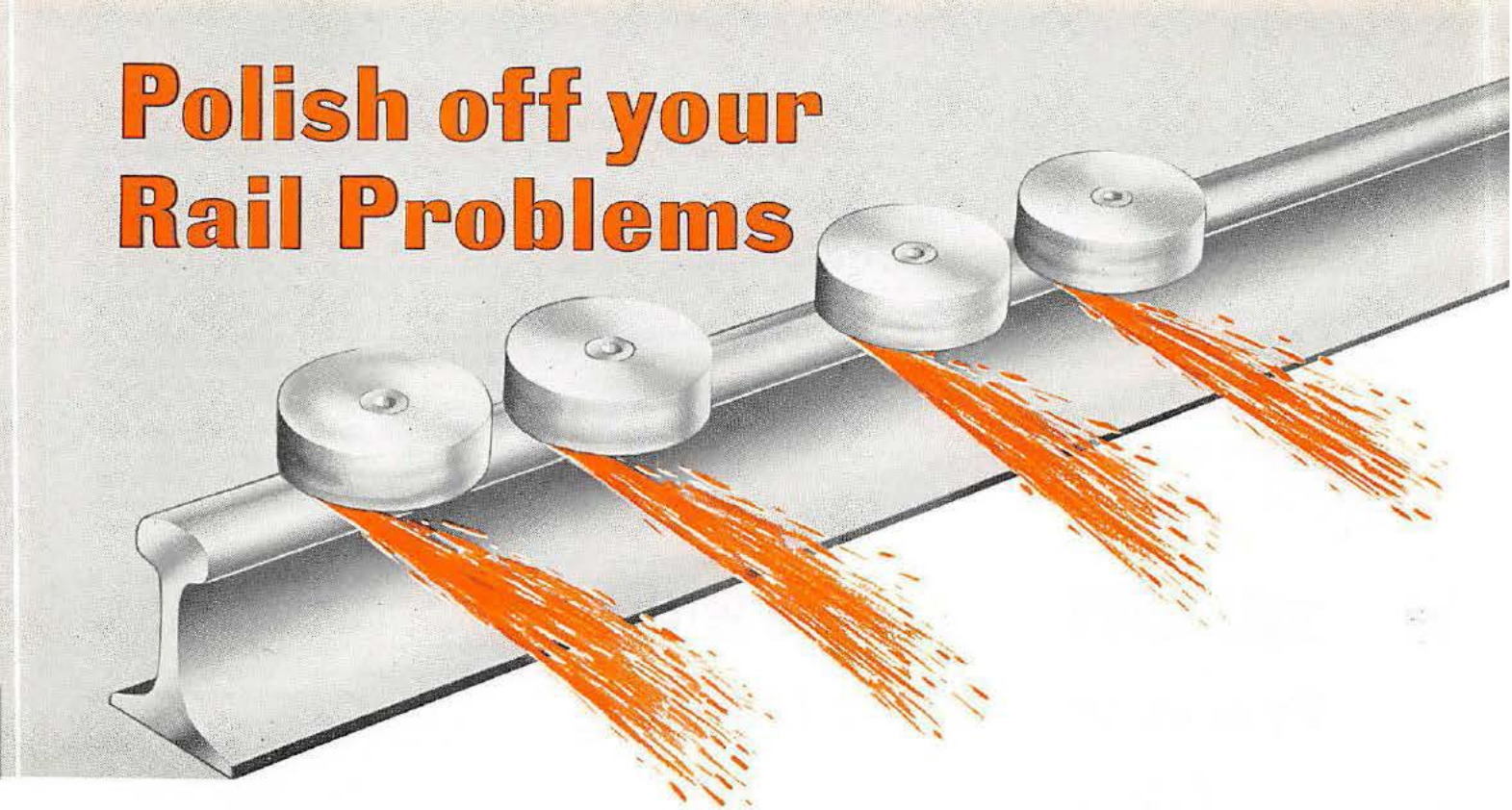

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Cruikshank elected president, effective May 1, to succeed **Ellis L. Simmons,** retiring. Mr. Cruikshank is assistant vice president-marketing planning of FW&D's parent company, **Burlington Northern.**

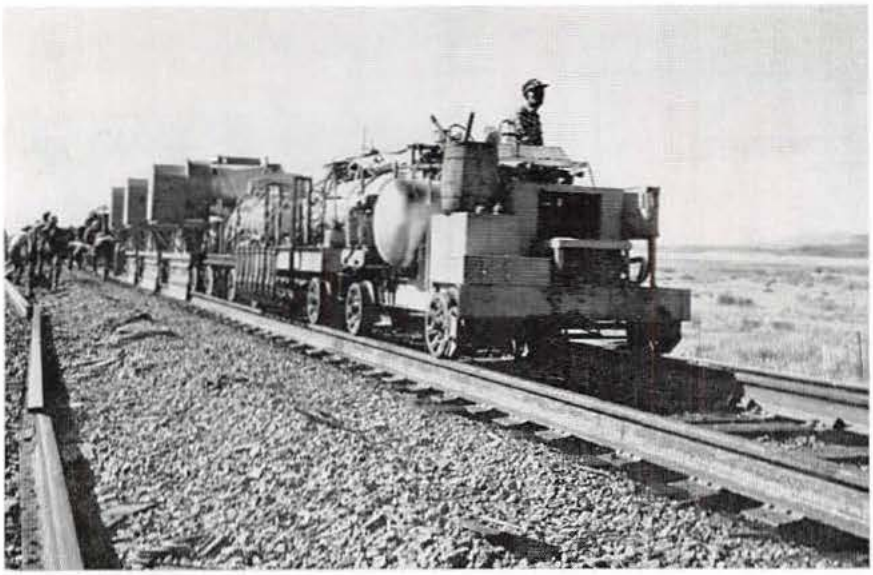
FRISCO.—E. J. Bunch, sales representative, Tampa, Fla., appointed district sales manager, Miami, to succeed the late **M.W. Murray. B. W. Hewitt,** chief clerk, Tampa, replaces Mr. Bunch. **J. A. Brooks,** assistant trainmaster, Hugo, Okla., named assistant district sales manager, Fort Smith, Ark.

GRAND TRUNK WESTERN.—Robert W. Knapp, superintendent, Chicago division, Battle Creek, Mich., appointed superintendent of transportation, Detroit. Mr. Knapp's successor is **Harold E. Kent,** assistant general superintendent of transportation, Detroit.

Earl G. Fontaine, senior projects officer, named analytical services officer, Detroit, succeeding **Jared H. Gillette,** retired. **James L. McNutt,** transportation engineer, replaces Mr. Fontaine.

ILLINOIS CENTRAL.—Thomas D. Wofford, director of operations research, Cost and Economic Analysis Department, appointed assistant chief engineer-cost control. **T. D. Kern** named assistant chief engineer-staff, and **Billy G. Sykes,** assistant chief engineer-design. Messrs. Kern and Sykes were formerly assistants to the chief engineer.

TELEWELD INC. **scores with a Practical Heating/Cooling CWR System**



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TELEWELD INC.

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G. McMurry, Jr., assistant director freight claim services, Chicago, retired Dec. 31, 1970, after 28 years of service. **B. G. Verbick,** district manager, freight claim services, Memph's, appointed supervisor-freight claim prevention, Chicago. Mr. Vrbick's successor is **D. E. Speight,** district manager, freight claim services, Paducah, Ky., who in turn is succeeded by **G. R. Herndobler,** transferred from Chicago. **E. B. Thomas** named district manager, freight claim prevention, Chicago, to replace Mr. Herndobler.

William E. Davis, district sales manager, Pittsburgh, named manager western sales, San Francisco. Mr. Davis' successor is **Robert D. Knight,** manager of sales training, Personnel Department, Chicago.

LOUISVILLE & NASHVILLE.—Norman H. Stier named assistant comptroller—expenditures accounting, and **Robert J. McIntyre,** assistant comptroller—corporate accounting, both newly created positions.

In the tax department **Lyman M. Cooper** appointed supervisor, property analysis, and **David F. Greenwall,** property analyst.

MAINE CENTRAL.—Stanley W. Watson, assistant treasurer, Portland, Me., elected treasurer. **Eric P. Smith** elected assistant treasurer and will also continue as director—cost analysis. **John Michaels,** auditor disbursements, promoted to assistant comptroller—expenditures. **Walter J. Provencher,** assistant auditor disbursements, promoted to auditor disbursements. **Clifford P. Hawkes,** auditor revenue and freight claims, promoted to assistant comptroller—revenues. **Leroy A. Taylor,** assistant auditor revenue and freight claims, promoted to auditor revenues. **Ralph H. Gordon,** auditor data processing and system manager, appointed director—management services.

James R. McFarlane, assistant to the chief engineer, appointed manager—industrial development, real estate and taxation.

MILWAUKEE.—Dean M. Trafelet named general attorney, Chicago.

Kenneth G. Hosfield, assistant freight traffic manager, and **William J. Donahoe,** manager of traffic reporting, named to the new positions of director of services and director of sales control, respectively. Both will continue to have headquarters in Chicago. **Bernard H. Desens,** assistant regional manager of sales, New York, appointed regional manager of sales, Kansas City, Mo., to succeed **E. Stuart Rogers,** who becomes manager of national accounts-paper industries, Chicago. **George A. Sansverie,** district manager of foreign freight sales, New York, succeeds Mr. Desens, and in turn is succeeded by **Robert C. McQuigg,** sales representative, Los Angeles. **Van Dunfee,** regional manager of sales, San Francisco, transferred to Chicago, succeeding **P. A. Larson,** named manager of national accounts-metal industries, Chicago. Mr. Dunfee's successor is **W. Vincent Dilworth,** assistant regional manager of sales, San Francisco. **Richard G. Graham,** district manager of sales, Oakland, Calif., named district manager of sales, San Francisco, succeeding Mr. Dilworth. **Laverne W. Schroeder,** assistant regional manager of sales, Des Moines, Iowa, becomes regional manager of sales there. **Harry R.**

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Genereau, assistant regional manager of sales, Washington, D.C., transferred to Detroit, to replace **Rolland R. Audas,** appointed manager of national accounts-food and beverages, Chicago. **Stanley J. Cloke,** traveling sales representative, Missoula, Mont., appointed district manager of sales there, to succeed **Kenneth R. Coughlin,** retired. **William F. Stetzner, Jr.,** agent, Butte, Mont., named general agent there.

Steven Cony named public relations representative, Chicago.

Larry E. Long, staff assistant to the president, appointed personnel administrator, with responsibility for recruitment, employment, training and development of personnel.

MISSOURI PACIFIC—TEXAS & PACIFIC.—H. R. Simmons, general agent, Salina, Kans., transferred to Odessa, Tex.

NORFOLK & WESTERN.—Chapman D. Tate, assistant to comptroller, named assistant comptroller, succeeding **Frank E. Eakin,** retired after a 43-year career with the N&W Accounting Department.

Robert J. Cripe, assistant general manager, Western Region, St. Louis, retired Jan. 1. **William A. Rudy,** administrative assistant to vice president—traffic assumes the duties of assistant to general manager. **John T. Ormond** has been appointed manager of transportation, Western Region, St. Louis, succeeding **Clarence Ray Fountain,** who retired after 44 years of service.

W. A. Lingo, district coal and ore traffic manager, St. Louis, retired after almost 50 years of service. **A. W. Kaeshoefer,** chief clerk to Mr. Lingo, appointed coal and ore traffic representative, St. Louis.

Bill Bridger, superintendent, Fort Wayne Division, Fort Wayne, Ind., transferred to the Shanandoah Division, Roanoke, succeeding **Glenn G. Mullins,** retired after 43 years of service. **James D. Mattox,** assistant superintendent, Columbus, Ohio, Terminal, succeeds Mr. Bridger at Fort Wayne. **Nelson H. Fortune, Jr.,** assistant superintendent, Scioto Division, Sandusky, Ohio, replaces Mr. Mattox at Columbus. **Hamilton N. Hering,** trainmaster, Detroit Terminal, replaces Mr. Fortune at Sandusky. **Leonard E. Trexell,** road foreman of engines, Pittsburgh Division, Rook, Pa., replaces M. Hering.

Joe E. Savely, director industrial development, appointed assistant vice president—industrial real estate, Roanoke. **David A. Cox** named director industrial real estate, Roanoke. **Charles E. Hunter** appointed regional manager industrial real estate, Roanoke, and will be assisted by **Elton L. Rardin,** manager industrial real estate. **Romauld B. Michels** named regional manager industrial real estate, St. Louis, and will be assisted by **Harold E. Hoover,** manager industrial real estate. **John B. Anderson** appointed regional manager industrial real estate, Cleveland, and will be assisted by **Thomas D. Gillett** and **Don A. Walker,** managers industrial real estate.

Burl H. Thomas, assistant traffic manager, Chicago, promoted to traffic manager there, succeeding **George W. Fisher,** transferred to Cincinnati. Mr. Fischer replaces **Downie C. Pate,** who retired after a 46-year career. **Harry Paul, Jr.,** sales

(Continued on page 62)

Market Outlook

CARLOADINGS

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REVENUE FREIGHT CARLOADINGS

Commodity	Feb. 20 week	Feb. 13 week
Grain	25,724	26,057
Farm products	14,691	13,921
Metallic ores	20,844	19,089
Coal	93,782	89,885
Crushed stone, gravel & Sand	19,499	19,635
Nonmetallic minerals	8,808	8,391
Grain mill products	18,347	19,760
Food & kindred products	24,968	25,549
Primary forest products	25,390	23,832
Lumber & wood products (except furniture)	14,460	14,511
Pulp, paper & allied products	23,004	23,277
Chemicals & allied products	26,152	25,459
Petroleum products	10,152	10,664
Stone, clay & glass products	16,272	14,603
Coke	8,096	7,676
Metals & products	25,462	24,633
Motor vehicles & equipment	24,782	25,257
Waste & scrap materials	15,561	14,654
Forwarder & shipper assn. traffic	5,270	5,463
All other carloads	63,672	63,267
LCL traffic	733	621
Total cars loaded	486,669	476,204

CUMULATIVE TOTAL, 8 weeks	1971	1970	1969
	3,782,630	3,863,830	3,952,892
Estimated revenue ton-miles (billions) 8 weeks	109.8	110.9	111.2

PIGGYBACK LOADINGS

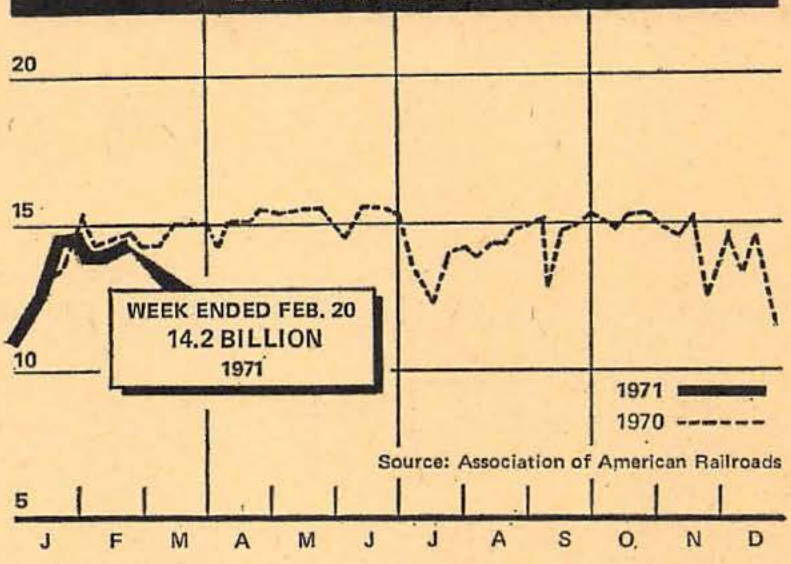
U.S. piggyback loadings for the week ended Feb. 13 totaled 23,115 cars (down 9.7% below the corresponding week last year) and 37,331 trailers of containers (down 14.3% from 1970). Cumulative volume for the first seven weeks of 1971 is 152,157 cars (off 6.5% from last year) and 240,824 trailers or containers (down 13.2% from 1970).

IN CANADA

7 days ending	Revenue Cars Loaded	Cumulative Totals
Feb. 7, 1971	65,452	3,251,311
Feb. 7, 1970	68,481	3,473,996

RAIL FREIGHT TRAFFIC TRENDS

BILLION TON-MILES (Estimated)



SHIPMENTS OF RAILROAD STEEL PRODUCTS

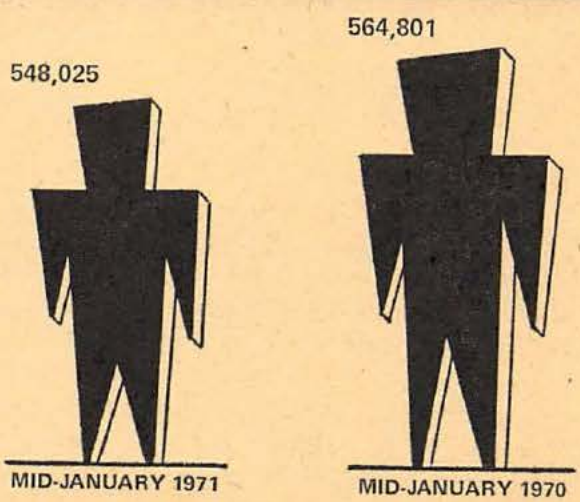
(DECEMBER AND 12 MONTHS 1970)

	NET TONS			
	December	Per Cent Change *	Twelve months	Per Cent Change*
Rails, trackwork and equipment	122,209	+34.8	1,090,432	+4.2
Freight and passenger cars and locomotives	153,951	-14.1	1,959,571	-13.3
Street railways and rapid transit systems	4,266	+35.7	46,877	-9.2

**Per cent change compares 1970 periods with like 1969 periods.*
Source: American Iron and Steel Institute.

RAILROAD EMPLOYMENT

(CLASS I LINE-HAUL RAILROADS)



Source: Bureau of Accounts, ICC.

Viewpoint

At DOT: A strange tack for TACV

The Department of Transportation has announced that it is going to build a tracked air-cushion vehicle (TACV) line from Dulles Airport to a parking lot seven miles outside of downtown Washington.

In the name of sanity, why?

The best answer may be simply that DOT wants something new and different (and wants it fast) to display during the transportation show DOT will hold at Dulles May 27 through June 4, 1972.

DOT's announcement raises many troubling questions.

—DOT says the Dulles TACV line is intended as a demonstration project that will test both the technical feasibility and rider acceptance of TACV. Couldn't technical feasibility be more cheaply ascertained at DOT's Pueblo, Colo., test facility? How can ridership be tested when riders must first drive to the parking lot to try the TACV line? Why not keep driving the rest of the way to the airport down the government's 65-mph Dulles access road?

—*A $130,000 study which DOT itself funded last year—to ascertain the best way of linking Washington's new Metro with Dulles—is still two months from completion.* Doesn't DOT's Feb. 16 announcement that it will put a TACV line into the Dulles highway's median strip seriously compromise the findings of this study? Suppose the study finds that conventional duo-rail, which could physically tie into the Metro line, is the best way? Will the TACV line be torn down? Will it be double-decked? (The Metro itself will have a station at the point—where the Dulles highway meets the Capital Beltway—where the TACV will have its parking lot. But even if the Metro is on schedule, its line will not get that far until 1976—four years after the TACV line is to be ready.)

—And whatever happened to the Los Angeles TACV project which DOT announced last year would be the first in the country? (In reply to questions, DOT now says vaguely that the Los Angeles airport line is in some kind of limbo—though not permanently. The Dulles TACV line, says DOT, will help debug the L.A. line before it is built. In any case, the DOT story goes, L.A. is running into local financing problems. And then there was the earthquake of Feb. 9, adds DOT).

The question that is being raised here is not whether TACV should be tested. All new technologies which promise to help resolve this country's mobility problems should get a careful, thorough look. While it is true that TACV is beginning to look less attractive than it once did as an early-priority item on DOT's shopping list, it nonetheless deserves a place on that list.

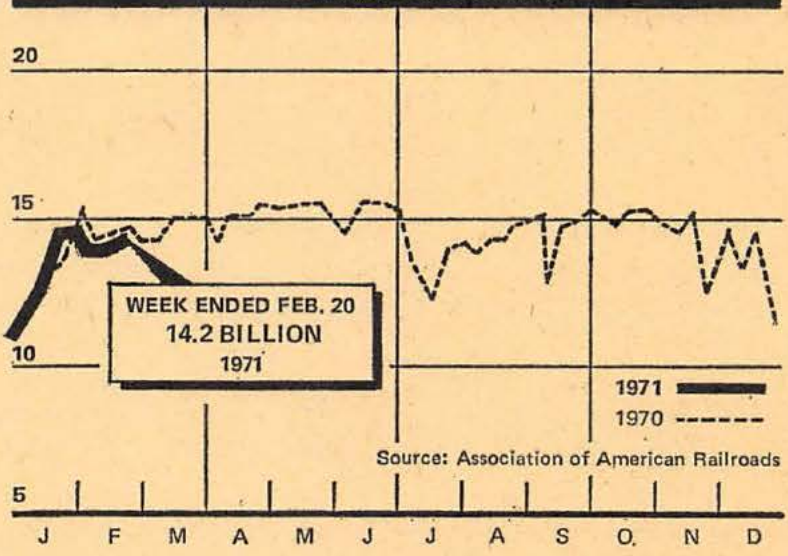
A QUESTION OF TIME—AND PLACE

The question is whether DOT has picked the right time, and the right place, for the test. The question is whether DOT, in its understandable zeal to put on a 1972 transportation show to eclipse all transportation shows, may have been carried away.

DOT has done far too good a job in giving mass-transit the priority it deserves in the allocation of the nation's transportation resources —in winning Congressional promise of billions of dollars in transit aid—to sink $25 million into this venture until a better case can be made for it.

RAIL FREIGHT TRAFFIC TRENDS

BILLION TON-MILES (Estimated)



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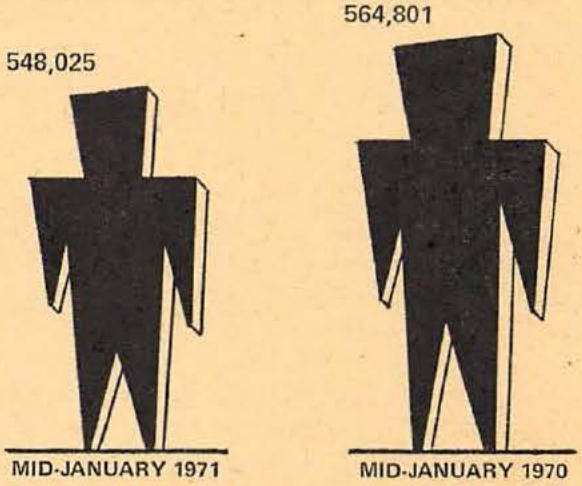

Source: Bureau of Accounts, ICC.

September. The cars, to be equipped with 10½-ft single plug doors and load dividers, will be assigned to the Coors brewery at Golden, Colo.

● *Gulf, Mobile & Ohio.*—Ordered 300 70-ton box cars equipped with cushioning devices from Pullman-Standard for May-June delivery.

● *January bad order ratio 0.1% higher than last year.*—Class I roads on Jan. 1, 1971, owned 1,423,343 freight cars, 14,847 fewer than on Jan. 1, 1970, according to AAR report summarized below. Bad order ratio was 0.1% higher than on Jan. 1, 1970.

	Jan. 1, 1971	Jan. 1, 1970	Change
Car ownership	1,423,343	1,438,190	−14,847
Waiting repair	80,487	79,932	+ 555
Repair ratio	5.7%	5.6%	+ 0.1%

LOCOMOTIVES

● *Gulf, Mobile & Ohio.*—Ordered 15 2,000-hp diesel-electric units from EMD.

NEW FACILITIES

● *Canadian National.*—A $4-million expansion program at CN's Transcona shops, Winnipeg, calls for construction of a 304-ft-by-144-ft addition to the heavy repair diesel shop; improvement of production line techniques in the freight-car shop; construction of a new main access road and parking facility; and other modernization and modification projects. This is in addition to the $1-million wheel shop project now under way. Also, CN has placed a $1.6-million order with the Signal and Communications Division of WABCO for a signal system to be used on a line relocation project near Niagara Falls, Canada.

● *Denver & Rio Grande Western.*—Ordered 10 sets of Wheel Thermo-Scanner Unit equipment from General Railway Signal. Six sets will be installed in Colorado (at Pine Cliff, Granby, Florence, Buena Vista, Dotsero and Una) and four in Utah (at Floy, Woodside and American Fork.

● *Pacific Great Eastern.*—Work is expected to begin soon on a 200-mile extension from Fort St. John northwestward to Fort Nelson. British Columbia Premier W. A. C. Bennett has announced that bids will be sought for 100 miles of track laying, and a contract will also be let for an additional 100 miles of roadbed clearing.

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TRANSIT

● *Philadelphia.*—Will modernize six subway stations at a total cost of $2.8 million, of which $1.9 million will be provided by the U.S. Department of Transportation, Urban Mass Transportation Administration. Improvements will include closed-circuit TV surveillance for all six stations, which are on the Broad and Ridge lines.

● *Port Authority Trans-Hudson Corp.*—Placed orders with Tiltman Langley, Ltd., of England for 175 exact change turnstiles costing $358,000; and 65 dollar bill/coin-changing machines costing $113,600.

● *Toronto Transit Commission.*—Awarded an $1.8-million contract to Montgomery Elevator Co. Ltd. for installation of 27 escalators in three new stations on the TTC's 5.5-mile Yonge subway extension.

FREIGHT-TRAIN CARS

● *Orders and deliveries.*—Orders were placed for 3,152 new freight cars in January, compared with 9,031 in the preceding month and 2,032 in January 1970. New cars on order and undelivered on Feb. 1 totaled 26,903, compared with 27,558 on Jan. 1, and 44,201 on Feb. 1, 1970.

FREIGHT TRAIN CARS ORDERED AND DELIVERED IN JANUARY AND BACKLOG OF ORDERS

DELIVERED

	Jan. 1971	Dec. 1970	Jan. 1970
Built new by carbuilders	3,183	4,096	3,484
Built new in R. R. shops	542	809	798
Built new—total	3,725	4,905	4,282
Rebuilt	655	1,078	542
TOTAL DELIVERED	**4,380**	**5,983**	**4,824**

ORDERED

To be built new by carbuilders	2,932	5,832	2,032
To be built new in R. R. shops	220	3,199	0
To be built new—total	3,152	9,031	2,032
To be rebuilt	282	0	2,388
TOTAL ORDERED	**3,434**	**9,031**	**4,420**

ON ORDER AND UNDELIVERED

	Feb. 1, 1971	Jan. 1, 1971	Feb. 1, 1970
To be built new by carbuilders	21,993	22,326	33,756
To be built new in R. R. shops	4,910	5,232	10,445
To be built new—total	26,903	27,558	44,201
To be rebuilt	2,011	2,384	5,432
TOTAL ON ORDER	**28,914**	**29,942**	**49,633**

● *Burlington Northern.*—Ordered 40 100-ton, 60-ft insulated box cars for subsidiary Colorado & Southern from Pacific Car & Foundry at a cost of $1.2 million. Deliveries will begin in

Viewpoint

At DOT: A strange tack for TACV

The Department of Transportation has announced that it is going to build a tracked air-cushion vehicle (TACV) line from Dulles Airport to a parking lot seven miles outside of downtown Washington.

In the name of sanity, why?

The best answer may be simply that DOT wants something new and different (and wants it fast) to display during the transportation show DOT will hold at Dulles May 27 through June 4, 1972.

DOT's announcement raises many troubling questions.

—DOT says the Dulles TACV line is intended as a demonstration project that will test both the technical feasibility and rider acceptance of TACV. Couldn't technical feasibility be more cheaply ascertained at DOT's Pueblo, Colo., test facility? How can ridership be tested when riders must first drive to the parking lot to try the TACV line? Why not keep driving the rest of the way to the airport down the government's 65-mph Dulles access road?

—*A $130,000 study which DOT itself funded last year—to ascertain the best way of linking Washington's new Metro with Dulles—is still two months from completion.* Doesn't DOT's Feb. 16 announcement that it will put a TACV line into the Dulles highway's median strip seriously compromise the findings of this study? Suppose the study finds that conventional duo-rail, which could physically tie into the Metro line, is the best way? Will the TACV line be torn down? Will it be double-decked? (The Metro itself will have a station at the point—where the Dulles highway meets the Capital Beltway—where the TACV will have its parking lot. But even if the Metro is on schedule, its line will not get that far until 1976—four years after the TACV line is to be ready.)

—And whatever happened to the Los Angeles TACV project which DOT announced last year would be the first in the country? (In reply to questions, DOT now says vaguely that the Los Angeles airport line is in some kind of limbo—though not permanently. The Dulles TACV line, says DOT, will help debug the L.A. line before it is built. In any case, the DOT story goes, L.A. is running into local financing problems. And then there was the earthquake of Feb. 9, adds DOT).

The question that is being raised here is not whether TACV should be tested. All new technologies which promise to help resolve this country's mobility problems should get a careful, thorough look. While it is true that TACV is beginning to look less attractive than it once did as an early-priority item on DOT's shopping list, it nonetheless deserves a place on that list.

A QUESTION OF TIME—AND PLACE

The question is whether DOT has picked the right time, and the right place, for the test. The question is whether DOT, in its understandable zeal to put on a 1972 transportation show to eclipse all transportation shows, may have been carried away.

DOT has done far too good a job in giving mass-transit the priority it deserves in the allocation of the nation's transportation resources —in winning Congressional promise of billions of dollars in transit aid—to sink $25 million into this venture until a better case can be made for it.

Get aboard the big Mechanical Division Special with the industry's top reporters

The above four, and other Railway Age and Railway Locomotives and Cars editors, will be serving up the news for the annual meeting of the AAR Mechanical Division at the Sheraton Chicago on June 23 and 24. There will be Mechanical Division meeting features, reports on equipment designs and new maintenance procedures. Both magazines will have extra distribution at the meeting. And this year the reports on car and locomotive trucks and suspensions will have special importance. . .

The spotlight is on riding qualities of equipment

The AAR has special groups studying the relation of equipment with track and attempting to coordinate the performance of the components of today's car trucks. One railroad has sponsored a dynamic study of the standard truck in an overseas laboratory. The Department of Transportation's new Colorado laboratory will give new opportunity to investigate dynamic problems on this continent. The problems of ride have plagued some of the new high speed trains and one mechanical officer has described the freight-car truck as riding "rough at any speed." Obviously a satisfactory suspension must have a range of capabilities. A number of improvements have been introduced but most introduce the added complication of higher cost.

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(Continued from page 56)

representative, Cleveland, appointed sales manager, Chicago, succeeding **Roland J. Albrecht,** who replaces Mr. Thomas.

Jean E. Lyon appointed to the new position of assistant general manager terminals—system. **Hobart L. Scott, Jr.,** succeeds Mr. Lyon as assistant general manager, Lake Region, Cleveland.

Raymond R. Mask promoted to auditor of station accounts, succeeding **Harry L. Lewis,** retired. **Harold N. St. Clair,** traveling auditor, named assistant auditor of station accounts, succeeding Mr. Mask.

Donald E. Turney, Jr., engineer of track, Cleveland, appointed regional engineer, St. Louis, succeeding **J. F. Holmberg,** retired.

NORFOLK SOUTHERN.—George A. Totty, district sales manager, Wilson, N.C., retired Dec. 31, after 48 years of railroad service, the last 25 of which were with the NS. On Jan. 1 the sales office at Wilson was closed and territory formerly under its jurisdiction will be covered by Raleigh, N.C., and Norfolk, Va.

PENN CENTRAL.—Albert M. Schofield, assistant vice president—planning coordination, appointed assistant vice president—passenger operation, succeeding **Robert D. Timpany,** resigned to become trustee, **Jersey Central.**

John M. McGuigan, general manager, Northeastern region, New Haven, Conn., appointed chief mechanical officer, Philadelphia, succeeding **James H. Heron,** retired after a railroad career of 34 years. **Hershel E. Ring,** assistant general manager, Northeastern Region, New Haven, Conn., succeeds Mr. McGuigan as general manager. **Walter L. Butz,** assistant general manager, Detroit, transferred to New Haven to succeed Mr. Ring.

Clifford W. Owens, general superintendent transportation, Pittsburgh, Pa., appointed assistant general manager, Central Region, succeeding **Bert L. Strohl,** transferred to Indianapolis, Ind., as assistant general manager, Southern Region.

E. Thomas Harley named general mechanical superintendent—equipment research and engineering planning. He is in charge of the Cleveland Technical Center, Inc., wholly-owned research subsidiary of the PC, succeeding **James J. Wright,** who organized the center in 1956. Work there will be limited to railroad-oriented problems, and research in nuclear physics and other areas will be phased out. Mr. Wright assumes Mr. Harley's former duties as general mechanical superintendent—locomotives. Both men are headquartered at Philadelphia. **Ormond R. Pendy, Jr.,** regional mechanical superintendent, Detroit, appointed director—equipment engineering, reporting to Mr. Harley. Mr. Pendy succeeds **George R. Weaver,** retired.

James F. Roseman, regional mechanical superintendent, Eastern Region, Philadelphia, named general superintendent—shops, in charge of the Beech Grove, Ind., repair facilities, succeeding **Gordon L. Zeider,** retired.

Joseph B DiCarlo, regional sales manager, Cleveland, Ohio, named regional sales manager, Chicago, succeeding **Ralph N. Cramer,** appointed assistant vice president—freight sales, Philadelphia (RA, Nov. 30, p. 65).

John L. Stanek, superintendent, Toledo Division, Toledo, Ohio, transferred to the Canada Division, St. Thomas, Ont., succeeding **H. Morris Babcock,** named general manager, **Toronto, Hamilton & Buffalo,** at Hamilton, Ont.

George M. Casady, director of passenger sales and terminal services, appointed director of stations, Philadelphia, succeeding **David S. Greer,** retired.

James A. Connelly, trainmaster, Ashtabula, Ohio, appointed assistant superintendent, Allegheny Division, Altoona, Pa.

ST. LOUIS SOUTHWESTERN.—Manuel Perez, general agent, Monterrey, N.L., Mex., transferred to Guadalajara, Jal., to succeed **Ricardo Alcala,** retired. **Ignacio Munoz,** traveling freight agent, Monterrey, succeeds Mr. Perez.

SEATRAIN LINES.—On Feb. 8 the Container Division moved into its new corporate headquarters at Port Seatrain in Weehawken, N.J.

SOO LINE.—Harold J. Ness named to the newly created position of manager of financial analysis, Minneapolis. He was formerly associated with **Penn Central.**

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Pullman Inc. has reorganized its transportation equipment divisions (RA, Feb. 8, p. 15). **George L. Green** has become executive vice president, **Transportation Equipment Divisions. T. A. Micali** is president of **Trailmobile Division,** and **E. T. Ahnquist** is president, **Pullman-Standard Division.**

Donald M. Deer, assistant vice president—public relations, **Westinghouse Air Brake Co.,** has been elected vice president—public relations, Pittsburgh.

Buford E. Vandergriff has been named general manager, Central Region, **REALCO Services, Inc.,** with headquarters in Chicago. **Clyde S. Stacy** has been appointed general manager, Southern Region, Atlanta. **Frank N. Lipko** has been appointed manager, intermodal services, South Atlantic and Gulf Ports. **Joseph A. Scott** has been appointed assistant to the general manager, Eastern Region. **Donald Pack Bryan** has been named director of communications, in charge of public relations, advertising and informational activities. Mr. Bryan was formerly senior account executive, **Selvage, Lee and Howard, Inc.,** Chicago.

John Hoffmaster has been appointed assistant general manager, Freight Car Division, **Transco Inc.**

Douglas F. Gladwell, sales and service Administrator, **Buffalo Brake Beam Co.,** Lackawanna, N.Y., has been promoted to assistant to vice president—sales.

Robert G. Farrar has been appointed manager of fleet services, **Transportation Division, General American Transportation Corp.** He was previously assistant sales manager for GATX freight refrigerator car operations.

John Helm, Southeastern regional manager, Transportation Division, **Binkley Co.,** has been promoted to general sales manager, Warrenton, Mo.

Wyer, Dick & Co., Montclair, N.J., has merged with **Edwards & Kelcey,** Newark, N.J. The purpose of the merger is to provide, under one umbrella, the variety of capabilities required to handle today's increasingly complex transportation situations.

The **Youngstown Steel Door Co.** has purchased for cash the assets of **Fabko Engineering Corp.,** Hinsdale, Ill. Fabko will be operated as a subsidiary of Youngstown, with **William E. Fritz** continuing as president.

TRANSIT

Roy A. Blount, vice chairman, **Metropolitan Atlanta Rapid Transit Authority,** has been elected chairman, succeeding **Rawson Haverty. Allen S. Hardin** has been elected vice chairman.

Edwin H. Weidman, manager of works, **Pullman-Standard** plant, Chicago, has been appointed an assistant general superintendent, in charge of the Car Maintenance Department, **New York City Transit Authority. Kimble L. Pollitt,** assistant general superintendent, cars and shops, of the Transit Authority, has been named assistant general superintendent, New Car Engineering Department.

George Prytula has been appointed marketing manager, Eastern Region Transportation Systems, **Rohr Corp.,** at Washington, D.C. Mr. Prytula was formerly market development manager, Transportation Division, **Westinghouse Electric Corp.,** in Pittsburgh.

Gerald A. Anderson, Jr., has been elected chairman of the board, **Cleveland Transit System.** Mr. Anderson is owner of G. A. Anderson & Co., urban redevelopment consultants He has been a member of the CTS board since Dec. 1967. He is also a member, Urban Transportation Advisory Council to the U.S. Secretary of Transportation.

Harold H. Geissenheimer, acting operating manager, **Port Authority of Allegheny County,** Pittsburgh, has been named manager of operations, Transit Division. **David R. Gobelle** has been named to the Electronic Engineer—Systems and Technology unit of the Port Authority's Early Action Program, which is the first step in the creation of a 60-mile system of rapid transit to serve Allegheny County.

Israel Valdez, Sr., has been appointed chief of special programs, Office of Civil Rights, **Urban Mass Transportation Administration, U.S. Department of Transportation.**

Frank C. Barnes and **William T. Foreman, Jr.,** have been appointed transportation planners, **Southern California Rapid Transit District, Los Angeles.** Mr. Foreman will be principally concerned with computer programming.

Raymond L. Barber has joined the staff of the **Bi-State Development Agency,** St. Louis, Mo., as transportation engineer. He was formerly with the Illinois Division of Highways.

James P. Doherty, manager, El Cerrito Lumber Co. and a former mayor and councilman of El Cerrito, has been elected district president, **San Francisco Bay Area Rapid Transit District** for 1971. He succeeds **William M. Reedy,** an electrical industry representative from San Francisco. **George M. Silliman,** vice president and director, Bank of Fremont, has been elected district vice president, succeeding **Stanley T. Grydyk,** an attorney and former councilman and mayor of Richmond.

OBITUARY

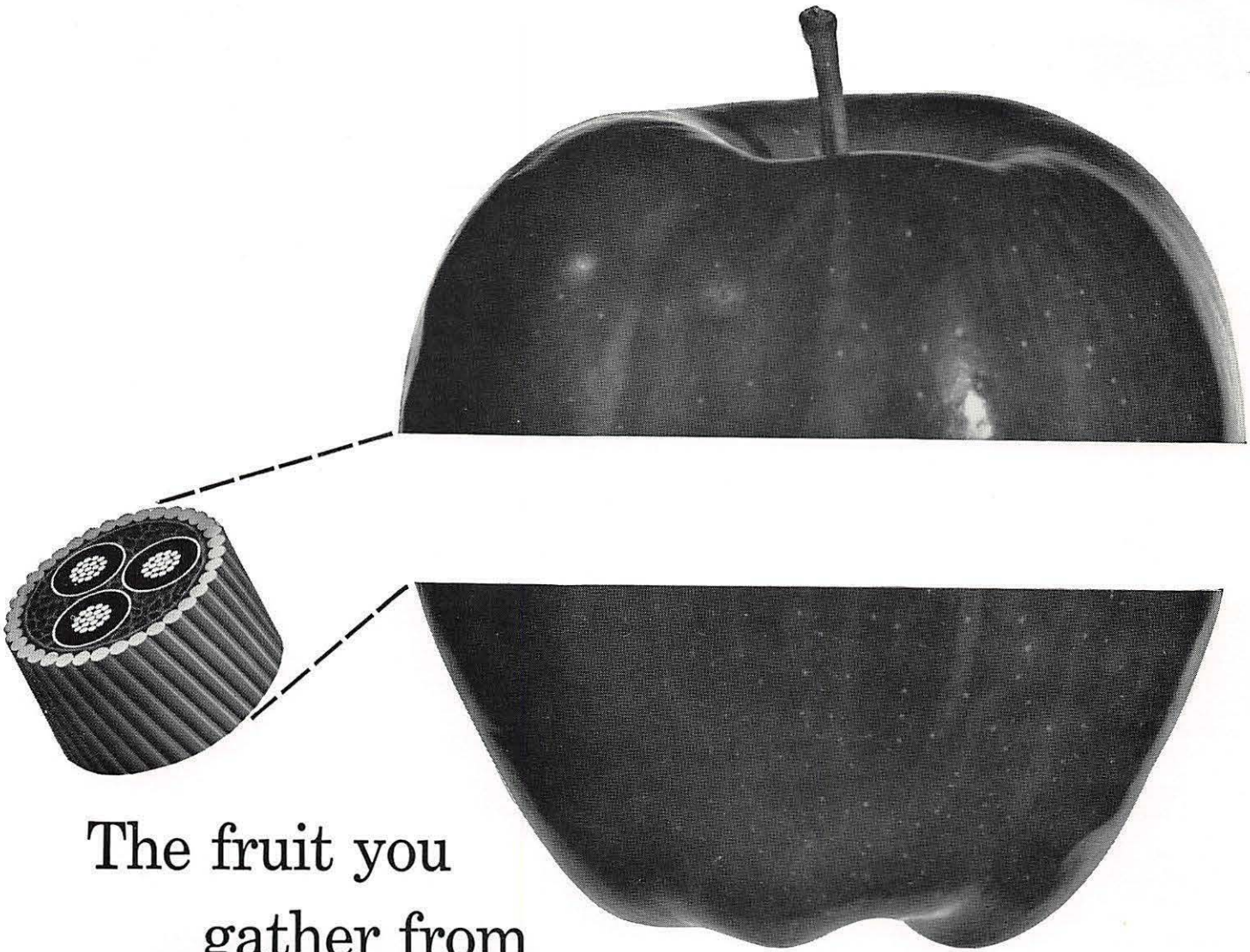
J. Hampton Baumgartner, 85, who retired in 1955 as manager of public relations, **Lackawanna** (now Erie Lackawanna), died Feb. 19, in Madison, N.J., after a long illness. Mr. Baumgartner was said to be the man who coined the term "public relations" to define his function with the **Baltimore & Ohio** (1910-1917).

Charles L. Bergmann, 64, first vice president, Railroad Advisory Department, **Shearson, Hammill & Co., Inc.,** New York, died Feb. 15. Prior to joining Shearson, Hammill in 1968, Mr. Bergmann headed the Corporate Underwriting and Corporate Trading Departments, **R. W. Pressprich & Co.**

Heinz G. Doering, 54, superintendent of rapid transit shops and terminals, **Chicago Transit Authority,** died Feb. 24 at MacNeal Memorial hospital, Berwyn.

Eugene E. Stookey, president, Buckeye Steel Castings Division, **Buckeye International, Inc.,** Columbus, Ohio, died Feb. 20.

Alfred Walcher, 91, retired director and vice president, **AMSTED Industries,** Chicago, died Feb. 10 in St. Louis, Mo.



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LUBRICATION ENGINEERING NEWS

New CITGO RD-836 diesel engine oil extends service life of high horsepower locomotives

Cities Service research and development program constantly producing new, improved diesel engine lubes

Cities Service Oil Company maintains an aggressive and continuing research and development program at the Cities Service Research Center complex near Princeton, New Jersey. Improved products for railroad applications, both on track and off, are under constant development and testing. Within the past two years alone, superior lubricants have been introduced for a number of different applications. In many cases, these advanced railroad lubes

have taken the place of two or more previous products and thus served to shorten the list of "required" lubricants in customers' inventories. For information on specific products now under development and available for test application programs, drop a line to L. M. Fleming, Transportation, Sales Department, Cities Service Oil Company, Box 300, Tulsa, Oklahoma 74102.

The promise of pulling more tonnage with fewer units and a resultant decrease in maintenance costs has remained little more than a promise in many cases. Higher horsepower diesel engines place greater demands on the crankcase oil and on those moving parts whose life depends on effective lubrication. Conventional high dispersant diesel lube oils just couldn't handle the load. Something better had to be developed.

That something better turned out to be CITGO RD-836, specifically formulated to get the maximum usage from each new high horsepower engine. RD-836 withstands more heat for longer periods: neutralizes greater amounts of acid; keeps oil filters and engine surfaces cleaner. Wear is reduced and oil life is significantly extended, resulting in less downtime and lower maintenance costs. Ten major railroads are now using CITGO RD-836. In case after case, examination of pistons, rings and cylinders following thousands of hours of operation shows virtually no wear.

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Among the properties which enhance the performance capabilities of CITGO RD-836 diesel engine oil include excellent reserve alkalinity for extended TBN retention, very fine compatibility with other approved diesel engine oils and unusual stability, which helps eliminate clutch slippage.

In addition to these qualities, RD-836 also possesses exceptional anti-rust and anti-foam properties provided by special components in the additive package. The superior grade Medium VI base stocks contribute exceptional oxidation stability and anti-wear protection along with good silver lubricity.

Dispersant, detergent keep engine parts clean, filters free-flowing.

An ashless dispersant and a detergent additive are key ingredients in CITGO RD-836 diesel engine oil. Designed to provide both longer service intervals and extended filter life, its high despersancy permits the

oil to flow readily through filter elements with a minimum of filter and oil cooler plugging. This is particularly important in the lubrication of engines equipped with by-pass valves, where particles in the unfiltered oil could otherwise settle out and cause abrasive damage to bearings.

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